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<210> 2016
<211> 104
<212> PRT
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35 40 45
Asp Thr Glu Arg Thr Val Ala Leu His Leu Pro Gln Phe Ala Gly Val
50 55 60
Ala Gly Ser Ser Leu Ile His Gly Gln Asp Ala Gln Pro Val Lys Ala
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<211> 457
<212> DNA
<213> Homo sapiens

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      35           40           45
Asn Ile Arg Leu Asp Asn Cys Pro Met Glu Asp Ala Val Gln Ile Leu
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      65           70           75           80
Asn Ser Asp Glu Leu Glu Thr Thr Gly Ala Val Ser Tyr Thr Val Glu
      85           90           95
Leu Lys Arg Tyr Gly Gly Pro Leu Gly Ile Thr Ile Ser Gly Thr Glu
      100          105          110
Glu Pro Phe Asp Pro Ile Phe Ile Ser Gly Leu Pro Lys Arg Gly Leu
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<210> 2019

<211> 483

<212> DNA

<213> Homo sapiens

<400> 2019

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<212> PRT

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<211> 135
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<400> 2022

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Gly Trp Ser Leu Pro Leu His Tyr Phe Gln Val Val Thr Trp Ala Val
 35           40           45
Phe Val Gly Leu Ser Ser Ala Thr Phe Gly Ile Phe Ile Pro Phe Leu
 50           55           60
Pro His Ala Trp Lys Tyr Ile Ala Tyr Val Val Ser Phe Ser Ser Trp
 65           70           75           80
His Gly Leu Ser Gly Arg Gly Ser Trp Arg Thr Leu Arg Trp Thr Trp
           85           90           95
Leu Trp Gly Leu Gly His Gly Cys Pro Val Ala Pro Val Thr Cys Pro
           100           105           110
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<210> 2023
 <211> 462
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<400> 2023

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Phe Ser Arg Cys Asp Leu Arg Val Asn Lys Cys Gly Ala Gln Arg Val
65 70 75 80
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85 90 95
Ser Ala Pro Leu Lys Ser Ser Ala Val Ser Phe Gln Leu Gln Leu Gln
100 105 110
Leu Gln Glu Ala Val Gln Glu Cys Ala Asp Pro Gly Val Pro Ser Gly
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| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Gln | Lys | Ser | Glu | Met | Ile | Leu | Val | Thr | Gly | Gln | Val | Phe | Gly | Gln | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Leu | Phe | Phe | Cys | Gln | Leu | Cys | Ile | Thr | Ser | Asp | Asp | Ile | Gly | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Cys | Arg | Leu | Lys | Phe | Lys | Ile | Gln | Val | Ala | Pro | Tyr | Ser | Ile | Phe |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Leu | His | Lys | Glu | Arg | Leu | His | Val | Leu | Ile | Leu | Cys | Gly | Leu | Cys | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Arg | Ser | Asn | Gln | Glu | Ser | Leu | Ile | Leu | Ser | Gln | Lys | Cys | Leu | Leu |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Leu | Ile | Glu | Pro | Lys | Val | Asn | Gly | Tyr | Tyr | Met | Leu | Ala | Thr | Leu | Gln |
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<210> 2029

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<212> DNA

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<400> 2029

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 7620
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 7680
 atcagttcaa aaggaggtac tgctgtgtaa tgggctttgt acgttccttc tcatgtcact
 7740
 tacgtcacta cttcgccatc aaattgaaca agcttttaat tagatcctga aaattcacta
 7800
 tgctagtagt ttattggtag tattatattt tgagtagaac tctgattttc cctagaggcc
 7860
 aaattctttt tatctgggtt aatttctttt aaacataaca atgttaatgc tgaattgtat
 7920
 attaaatccc atttctaaaa accacacaat tttttctcat gtaagttgag tggaatgtgg
 7980
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 8028

<210> 2030

<211> 794

<212> PRT

<213> Homo sapiens

<400> 2030

Met Arg Val Arg Ile Gly Leu Thr Leu Leu Leu Cys Ala Val Leu Leu
 1 5 10 15
 Ser Leu Ala Ser Ala Ser Ser Asp Glu Glu Gly Ser Gln Asp Glu Ser
 20 25 30
 Leu Asp Ser Lys Thr Thr Leu Thr Ser Asp Glu Ser Val Lys Asp His
 35 40 45
 Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe Leu Asp Ser Glu
 50 55 60
 Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu Glu Asp Ser Leu Lys
 65 70 75 80
 Ser Gln Glu Gly Glu Ser Val Thr Glu Asp Ile Ser Phe Leu Glu Ser

1541

515 520 525
 His Ala Ser Gly Thr Gly Val Met Arg Ser Cys His Thr Ala Val Glu
 530 535 540
 Leu Phe Lys Asn Val Cys Glu Arg Gly Arg Trp Ser Glu Arg Leu Met
 545 550 555 560
 Thr Ala Tyr Asn Ser Tyr Lys Asp Gly Asp Tyr Asn Ala Ala Val Ile
 565 570 575
 Gln Tyr Leu Leu Leu Ala Glu Gln Gly Tyr Glu Val Ala Gln Ser Asn
 580 585 590
 Ala Ala Phe Ile Leu Asp Gln Arg Glu Ala Ser Ile Val Gly Glu Asn
 595 600 605
 Glu Thr Tyr Pro Arg Ala Leu Leu His Trp Asn Arg Ala Ala Ser Gln
 610 615 620
 Gly Tyr Thr Val Ala Arg Ile Lys Leu Gly Asp Tyr His Phe Tyr Gly
 625 630 635 640
 Phe Gly Thr Asp Val Asp Tyr Glu Thr Ala Phe Ile His Tyr Arg Leu
 645 650 655
 Ala Ser Glu Gln Gln His Ser Ala Gln Ala Met Phe Asn Leu Gly Tyr
 660 665 670
 Met His Glu Lys Gly Leu Gly Ile Lys Gln Asp Ile His Leu Ala Lys
 675 680 685
 Arg Phe Tyr Asp Met Ala Ala Glu Ala Ser Pro Asp Ala Gln Val Pro
 690 695 700
 Val Phe Leu Ala Leu Cys Lys Leu Gly Val Val Tyr Phe Leu Gln Tyr
 705 710 715 720
 Ile Arg Glu Thr Asn Ile Arg Asp Met Phe Thr Gln Leu Asp Met Asp
 725 730 735
 Gln Leu Leu Gly Pro Glu Trp Asp Leu Tyr Leu Met Thr Ile Ile Ala
 740 745 750
 Leu Leu Leu Gly Thr Val Ile Ala Tyr Arg Gln Arg Gln His Gln Asp
 755 760 765
 Met Pro Ala Pro Arg Pro Pro Gly Pro Arg Pro Ala Pro Pro Gln Gln
 770 775 780
 Glu Gly Pro Pro Glu Gln Gln Pro Pro Gln
 785 790

<210> 2031

<211> 662

<212> DNA

<213> Homo sapiens

<400> 2031

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 120
 aaccccgtag cgacactgga cagcatctg ctcggcggtt ggatgaaacc tgccgaacag
 180
 cgcagcgga tcgaacaggc ttcctgggac cgctccaatc aattgaccga cgaattgctc
 240
 gccgcccagc tgctgggtgat ggctgcaccg atgtacaact tcgctatccc cagcaccctc
 300
 aaagcctggc tggaccacgt gttgcgtgcc ggtgtgacct tcaagtacac cgccaccggc
 360

cccagggat tgctgcacgg caagcgcgcg attgtgctga ccgctcgcg cggcattcat
 420
 accggcgcca gctccgatca ccaggaaccg tacctgcgcc aggtcatggc ctttatcggg
 480
 attcatgacg tcacgttcat tcatgccgaa ggggtgaact tgagcgggtga cttccaggaa
 540
 aaaggcctta accacgcca ggcgttgctg gcgcaacttg tggcatgaac cgagtcaacg
 600
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 660
 gt
 662

<210> 2032
 <211> 195
 <212> PRT
 <213> Homo sapiens

<400> 2032
 Ile Ile Glu Ser Ser Ala Arg Gln Gln Asp Ser Ile Ser Arg Gln Leu
 1 5 10 15
 Thr Gln Gln Phe Ile Ser Gln Trp Gln Ala Ala His Pro Ala Asp Gln
 20 25 30
 Ile Thr Val Arg Asp Val Ala Leu Asn Pro Val Pro His Leu Asp Thr
 35 40 45
 His Leu Leu Gly Gly Trp Met Lys Pro Ala Glu Gln Arg Ser Ala Ile
 50 55 60
 Glu Gln Ala Ser Leu Asp Arg Ser Asn Gln Leu Thr Asp Glu Leu Leu
 65 70 75 80
 Ala Ala Asp Val Leu Val Met Ala Ala Pro Met Tyr Asn Phe Ala Ile
 85 90 95
 Pro Ser Thr Leu Lys Ala Trp Leu Asp His Val Leu Arg Ala Gly Val
 100 105 110
 Thr Phe Lys Tyr Thr Ala Thr Gly Pro Gln Gly Leu Leu His Gly Lys
 115 120 125
 Arg Ala Ile Val Leu Thr Ala Arg Gly Gly Ile His Thr Gly Ala Ser
 130 135 140
 Ser Asp His Gln Glu Pro Tyr Leu Arg Gln Val Met Ala Phe Ile Gly
 145 150 155 160
 Ile His Asp Val Thr Phe Ile His Ala Glu Gly Val Asn Leu Ser Gly
 165 170 175
 Asp Phe Gln Glu Lys Gly Leu Asn His Ala Lys Ala Leu Leu Ala Gln
 180 185 190
 Leu Val Ala
 195

<210> 2033
 <211> 380
 <212> DNA
 <213> Homo sapiens

<400> 2033
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atgaaaaaaa gtgatttggt aaaaggatca cttcctatca aatcaatcaa cgctcatgga
 120
 caaaaagtca caatcaatac taaagaacct tatccagaat taaagtctga actcgcaagc
 180
 ccatttgctg ctatatacga cacaaaagct aaaaacaaag taactgatca acctgttggt
 240
 acgggtcctt atcaaattga cagttataaa cgttcgcaaa aaatcgattt aaaacaattc
 300
 aaagactact ggcaaggtag gccaaaatta aaaagaatta atgtcactta tcatgaagat
 360
 ggtaatantc gtgttgatca
 380

<210> 2034

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2034

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Lys | Ser | Asp | Leu | Leu | Lys | Gly | Ser | Leu | Pro | Ile | Lys | Ser | Ile |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Asn | Ala | His | Gly | Gln | Lys | Val | Thr | Ile | Asn | Thr | Lys | Glu | Pro | Tyr | Pro |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Glu | Leu | Lys | Ser | Glu | Leu | Ala | Ser | Pro | Phe | Ala | Ala | Ile | Tyr | Asp | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Ala | Lys | Asn | Lys | Val | Thr | Asp | Gln | Pro | Val | Gly | Thr | Gly | Pro | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Ile | Asp | Ser | Tyr | Lys | Arg | Ser | Gln | Lys | Ile | Val | Leu | Lys | Gln | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Lys | Asp | Tyr | Trp | Gln | Gly | Thr | Pro | Lys | Leu | Lys | Arg | Ile | Asn | Val | Thr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Tyr | His | Glu | Asp | Gly | Asn | Xaa | Arg | Val | Asp | | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 2035

<211> 495

<212> DNA

<213> Homo sapiens

<400> 2035

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 120
 tatgctntaa tgttccccctt tcattctcgca tgtctccact tctgctgcta ttgctgttac
 180
 ttgtgtgttg gtgcacctaa tgggtgtccca tatttctctg atgctgtggt catttttctt
 240
 gattctttct actgtctggt cttcagtttg cataatccat attgttctct ctactagtcc
 300
 actggtgctt ttgcctgcca gctctaattt actgttatcc ctttagtga aattttttct
 360
 ttttttctct tctcattcca gttattatac agaactattc aacttcaaga tttgtggggg
 420

tttggttttgt tttggttttga gaccccatct caaaaaaaaaa aaaaaccagc tttctcctca
 480
 acttggggga acctt
 495

<210> 2036
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 2036
 Xaa Ile Pro Leu Leu Leu Ala Thr Gln Ala Gln Ala Thr Arg Ser His
 1 5 10 15
 Asp Thr Ser Cys Leu His Phe Phe His Val Cys Met Tyr Val Cys Met
 20 25 30
 Tyr Val Cys Met Tyr Val Cys Met Tyr Ala Xaa Met Phe Pro Phe His
 35 40 45
 Leu Ala Cys Leu His Phe Cys Cys Tyr Cys Cys Tyr Leu Cys Val Gly
 50 55 60
 Ala Pro Asn Gly Val Pro Tyr Phe Ser Asp Ala Val Phe Ile Phe Leu
 65 70 75 80
 Asp Ser Phe Tyr Cys Leu Val Phe Ser Leu His Asn Pro Tyr Cys Ser
 85 90 95
 Leu Tyr

<210> 2037
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 2037
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 ggaagagtga gggtggagtg cctttcccg cgtcatcttc cgtccccact ccacgcccag
 120
 caaatccaaa caccgcgcc tctggtggcc cgggcttcca tttcccctgg aggggcaagg
 180
 gcgtttcctc ttccgccc aa cggggcgct gagcgggcg aacagcggcg ggggctttgt
 240
 ggtcccgggg ggtccgagtg tgtgtcaggg gctggggcg gggatgggag cggcccctgg
 300
 gtatccctca cggctctggt tcatgag
 327

<210> 2038
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 2038
 Met Glu Lys Trp Gly Arg Thr Gln Thr Gly Arg Val Arg Leu Glu Cys
 1 5 10 15
 Leu Ser Arg Ala His Leu Pro Ser Pro Leu His Ala Gln Gln Ile Gln

20 25 30
 Thr Pro Arg Pro Leu Val Ala Arg Ala Ser Ile Ser Pro Gly Gly Ala
 35 40 45
 Arg Ala Phe Pro Leu Pro Pro Asn Arg Gly Ala Glu Arg Arg Glu Gln
 50 55 60
 Arg Arg Gly Leu Cys Gly Pro Gly Gly Ser Glu Cys Val Ser Gly Ala
 65 70 75 80
 Gly Ala Gly Asp Gly Arg Gly Pro Trp Val Ser Leu Thr Val Leu Val
 85 90 95
 His Glu

<210> 2039

<211> 307

<212> DNA

<213> Homo sapiens

<400> 2039

accggtgatc cactctgcga aagcggccgc gagcgaagcg ttcttggtct tcttcgagat
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 cgcgatgtat tgcccggaaa acagcggcctt gatgccgtca ttgagaggct ctgggccaac
 120
 accggtacgg gcatatgcct gggcggcatt cttttggatg ttgcgaagaa aggacgcatt
 180
 cggcgtgccg aaagccaggg atccttcacc gtagacctg gaccgatgga ggcccccggc
 240
 aatcgagtcc ttcgaaattc ccccttgcca tacatgtcgg ccacgtcgt cagccagagt
 300
 aacgcgt
 307

<210> 2040

<211> 94

<212> PRT

<213> Homo sapiens

<400> 2040

Met Ala Asp Met Tyr Ala Lys Gly Glu Phe Arg Arg Thr Arg Leu Pro
 1 5 10 15
 Gly Ala Ser Ile Gly Pro Arg Ser Thr Val Lys Asp Pro Trp Leu Ser
 20 25 30
 Ala Arg Arg Met Arg Pro Phe Phe Ala Thr Ser Lys Arg Met Pro Pro
 35 40 45
 Arg His Met Pro Val Pro Val Leu Ala Gln Ser Leu Ser Met Thr Ala
 50 55 60
 Ser Ser Arg Cys Phe Pro Gly Asn Thr Ser Arg Ser Arg Arg Arg Pro
 65 70 75 80
 Arg Thr Leu Arg Ser Arg Pro Leu Ser Gln Ser Gly Ser Pro
 85 90

<210> 2041

<211> 348

<212> DNA

<213> Homo sapiens

<400> 2041
 nnccggcgat gcagggattc gcccgcgatg cgctcgaacc cggcgcgggg ggcgttcctc
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 gccagcttcc tgcggttcgc cagacgcac gccgagggcg gggatgcgcaa ttcgctcgcc
 120
 cagctggtcg ccaagctgac cctgcccggc atgcccagaca tctaccaggg ctgcgagatg
 180
 tgggacctca gcctggctga cggggacaat cgccgccccg tcgactacga gacacgcgac
 240
 gcggccctgg ccggtgggt cgcgaccccg ccggaggaac gcgccgcggc gctgcgcacc
 300
 ctgctgacgg attggcgag cggcgcggtc aagctggccg tgacgcgt
 348

<210> 2042

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2042

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Arg | Cys | Arg | Asp | Ser | Pro | Ala | Met | Arg | Ser | Asn | Pro | Ala | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ala | Phe | Leu | Ala | Ser | Phe | Leu | Pro | Phe | Ala | Arg | Arg | Ile | Ala | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Gly | Val | Arg | Asn | Ser | Leu | Ala | Gln | Leu | Val | Ala | Lys | Leu | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Gly | Met | Pro | Asp | Ile | Tyr | Gln | Gly | Cys | Glu | Met | Trp | Asp | Leu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Val | Asp | Arg | Asp | Asn | Arg | Arg | Pro | Val | Asp | Tyr | Glu | Thr | Arg | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Ala | Leu | Ala | Gly | Trp | Val | Ala | Thr | Pro | Pro | Glu | Glu | Arg | Ala | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Leu | Arg | Thr | Leu | Leu | Thr | Asp | Trp | Arg | Ser | Gly | Ala | Val | Lys | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Ala | Val | Thr | Arg | | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 2043

<211> 712

<212> DNA

<213> Homo sapiens

<400> 2043

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 120
 gaacgtgccg ataccgggga tggaccccg cggtggatca ttgatccgat cgacggcact
 180
 gcgaattttc tgcgtggggc cccagtgtgg gccaccctca ttgccctcag cgtcgaggac
 240
 cagattgtcg catctgtggc ctctgtcct gccctcaagc gacgctggcg ggcagcccgt
 300

ggctcaggag catggtcggg caaatccctg gcctcagcga caccgatcca cgtctcgaat
 360
 gtgcgcaatc ttgccgacgc attcttgctc tactcttcgc tgcacggatg ggtcagagagc
 420
 ggacgagggc acgggttcgg tgaactcatg cggtcggtgt ggcggaccgc agccttcggc
 480
 gatttctggt cttacatgat ggtggcagaa ggtgtcgtcg atgtggcatg cgagccggaa
 540
 ctcagcctgc acgacatggc cgccctcgac gctatcgtca ccgaggcggg cggtaagtgc
 600
 accggtctcg atggcaaaga cggcccgtag tctgggaatg ctctggcgtc gaatggtttc
 660
 cttcatgacc aggccttagc catggtccag cctcaggagt gagcaccgat cg
 712

<210> 2044

<211> 233

<212> PRT

<213> Homo sapiens

<400> 2044

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Thr | Val | Ser | Thr | Lys | Pro | Asp | His | Ser | Glu | Val | Thr | Asp | Ala |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Asp | Leu | Ala | Val | Glu | Asp | Ser | Val | Arg | Arg | Ala | Leu | Ser | Arg | Met | Arg |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ser | Arg | Asp | Ala | Val | His | Gly | Glu | Glu | Arg | Ala | Asp | Thr | Gly | Asp | Gly |
| | 35 | | | | | 40 | | | | | | 45 | | | |
| Pro | Arg | Arg | Trp | Ile | Ile | Asp | Pro | Ile | Asp | Gly | Thr | Ala | Asn | Phe | Leu |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Arg | Gly | Val | Pro | Val | Trp | Ala | Thr | Leu | Ile | Ala | Leu | Ser | Val | Glu | Asp |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Gln | Ile | Val | Ala | Ser | Val | Val | Ser | Ala | Pro | Ala | Leu | Lys | Arg | Arg | Trp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Trp | Ala | Ala | Arg | Gly | Ser | Gly | Ala | Trp | Ser | Gly | Lys | Ser | Leu | Ala | Ser |
| | 100 | | | | | | 105 | | | | | | 110 | | |
| Ala | Thr | Pro | Ile | His | Val | Ser | Asn | Val | Arg | Asn | Leu | Ala | Asp | Ala | Phe |
| | 115 | | | | | | 120 | | | | 125 | | | | |
| Leu | Ser | Tyr | Ser | Ser | Leu | His | Gly | Trp | Val | Glu | Ser | Gly | Arg | Gly | His |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Phe | Gly | Glu | Leu | Met | Arg | Ser | Val | Trp | Arg | Thr | Arg | Ala | Phe | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Asp | Phe | Trp | Ser | Tyr | Met | Met | Val | Ala | Glu | Gly | Val | Val | Asp | Val | Ala |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Cys | Glu | Pro | Glu | Leu | Ser | Leu | His | Asp | Met | Ala | Ala | Leu | Asp | Ala | Ile |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Val | Thr | Glu | Ala | Gly | Gly | Lys | Phe | Thr | Gly | Leu | Asp | Gly | Lys | Asp | Gly |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Pro | Trp | Ser | Gly | Asn | Ala | Leu | Ala | Ser | Asn | Gly | Phe | Leu | His | Asp | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Leu | Ala | Met | Val | Gln | Pro | Gln | Glu | | | | | | | |
| 225 | | | | | 230 | | | | | | | | | | |

<210> 2045

<211> 406

<212> DNA

<213> Homo sapiens

<400> 2045

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atgcgccgga tgggcgacgg tgatggaccg ggcgctggac ctgggcggtc gcttcgacga
120
cantacaggc tttggccgag gcgggttgga agaaaccggt caaccggtgg tttggccccg
180
catcaatgcc cagaaccaga agccttgccg attcgtccca ggccgttcaa ggccgatggc
240
gagatcgctg cgatgactgg cgacggtgtc aacgacgccc cctcgctcaa ggcgggccat
300
atcgggtgtg ccatggacaa acgcggcacc gacgtcgccg gcgaggcttc cgccatggtc
360
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406

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<210> 2046

<211> 135

<212> PRT

<213> Homo sapiens

<400> 2046

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Xaa Trp Thr Pro Ala Thr Met Pro Pro Pro His Gly Ser Ile Ala Asp
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Pro Gly Gln Gly Met Arg Arg Met Gly Asp Gly Asp Gly Pro Gly Ala
20      25      30
Gly Pro Gly Arg Ser Leu Arg Arg Xaa Tyr Arg Leu Trp Pro Arg Arg
35      40      45
Val Gly Arg Asn Arg Ser Thr Gly Gly Leu Ala Pro His Gln Cys Pro
50      55      60
Glu Pro Glu Ala Leu Arg Ile Arg Pro Arg Pro Phe Lys Ala Asp Gly
65      70      75      80
Glu Ile Val Ala Met Thr Gly Asp Gly Val Asn Asp Ala Pro Ser Leu
85      90      95
Lys Ala Ala His Ile Gly Val Ala Met Asp Lys Arg Gly Thr Asp Val
100      105      110
Ala Arg Glu Ala Ser Ala Met Val Leu Leu Glu Asp Asp Phe Gly Ser
115      120      125
Ile Val Gln Ser Val Arg Leu
130      135

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<210> 2047

<211> 796

<212> DNA

<213> Homo sapiens

<400> 2047

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aagctttgga acgagacccc tgagctctgg gttcagcccc gaggaagccc agcaacagga
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tgaggaattt gagaagaaga ttccaagtgt ggaagacagc cttggagagg gcagcagggg
120

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tgctggccgg ccaggagaga gaggatccgg gggcttggtc agtcctagca ctgcccacgt
 180
 gccggatggg gcactcgggc agagagacca gagcagctgg caaaacagtg atgctagcca
 240
 ggaggtggga gggcatcagg agagacagca ggcaggggct cagggccctg gcagtgtga
 300
 cctggaagat ggggagatgg gaaagcgagg ctgggtcggg gagtttagcc tcagtgttgg
 360
 cccccagcga gaggcagcat ttagcccagg gcagcaggac tggagccggg acttctgcat
 420
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 tggcttttagc ccttctagca agatggaagg tggtcacttt gtgcctcctg ggaagaccac
 540
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 600
 tgtgggttct gggggctcga gcgaggccag ggagagtgcc gtgggacaga tgggctggtc
 660
 agtggcctg agcttgagag acatgaacct gaccggctgt ttggaaagtg gagggctctga
 720
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 780
 caaagatttg gctgag
 796

<210> 2048

<211> 160

<212> PRT

<213> Homo sapiens

<400> 2048

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Lys | Arg | Gly | Trp | Val | Gly | Glu | Phe | Ser | Leu | Ser | Val | Gly | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Arg | Glu | Ala | Phe | Ser | Pro | Gly | Gln | Gln | Asp | Trp | Ser | Arg | Asp | |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Phe | Cys | Ile | Glu | Ala | Ser | Glu | Arg | Ser | Tyr | Gln | Phe | Gly | Ile | Ile | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Asp | Arg | Val | Ser | Gly | Ala | Gly | Phe | Ser | Pro | Ser | Ser | Lys | Met | Glu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gly | Gly | His | Phe | Val | Pro | Pro | Gly | Lys | Thr | Thr | Ala | Gly | Ser | Val | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Trp | Thr | Asp | Gln | Leu | Gly | Leu | Arg | Asn | Leu | Glu | Val | Ser | Ser | Cys | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | Ser | Gly | Gly | Ser | Ser | Glu | Ala | Arg | Glu | Ser | Ala | Val | Gly | Gln | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Trp | Ser | Gly | Gly | Leu | Ser | Leu | Arg | Asp | Met | Asn | Leu | Thr | Gly | Cys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Glu | Ser | Gly | Gly | Ser | Glu | Glu | Pro | Gly | Gly | Ile | Gly | Ile | Gly | Glu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Lys | Asp | Trp | Thr | Ser | Asp | Val | Asn | Val | Lys | Ser | Lys | Asp | Leu | Ala | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

<210> 2049

<211> 516

<212> DNA

<213> Homo sapiens

<400> 2049

cgcgctcgctt acggtgcgct gaataccagc ctgctggcgc tggcggtcag cttcgcgctg
 60
 ctgttcctcg ggatagtgtt cgggctgatg ccacgtctga tgtgcggggg gattgaactg
 120
 gccaacgctc ccccgccaat cgccctgggc ctgttagtag tcgccattag cggcccttca
 180
 gcctacggtg ccgcctgtgc ggtgatgttg gtcagttggg ctccgctggc cgccattgt
 240
 gcttcgttgt tggcggaagc ccgcacgcag ccctatatcc gcatgttgcc ggtattgggc
 300
 gtcggccgat ggcgcacgct gaccactac ctgctgccgg cgctctctgc tcccctgctg
 360
 cgccacgcca tggtgcgtct gccgggcatt gcgctggcgc tggcggcctt gggttttttt
 420
 ggtcttgggc cgcagccacc cagtgcagaa tgggggctgg tgctggcgga aggcattgcct
 480
 tatctcgaac gggcgccctg gggagtcctg gcaccg
 516

<210> 2050

<211> 172

<212> PRT

<213> Homo sapiens

<400> 2050

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Ala | Tyr | Gly | Ala | Leu | Asn | Thr | Ser | Leu | Leu | Ala | Leu | Ala | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Phe | Ala | Ser | Leu | Phe | Leu | Gly | Ile | Val | Phe | Gly | Leu | Met | Pro | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Met | Cys | Gly | Val | Ile | Glu | Leu | Ala | Asn | Ala | Pro | Pro | Pro | Ile | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gly | Leu | Leu | Val | Val | Ala | Ile | Ser | Gly | Pro | Ser | Ala | Tyr | Gly | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Cys | Ala | Val | Met | Leu | Val | Ser | Trp | Ala | Pro | Leu | Ala | Ala | His | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Ser | Leu | Leu | Ala | Glu | Ala | Arg | Thr | Gln | Pro | Tyr | Ile | Arg | Met | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Val | Leu | Gly | Val | Gly | Arg | Trp | Arg | Thr | Leu | Thr | His | Tyr | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Ala | Leu | Ser | Ala | Pro | Leu | Leu | Arg | His | Ala | Met | Leu | Arg | Leu | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Ile | Ala | Leu | Ala | Leu | Ala | Ala | Leu | Gly | Phe | Phe | Gly | Leu | Gly | Pro |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Gln | Pro | Pro | Ser | Ala | Glu | Trp | Gly | Leu | Val | Leu | Ala | Glu | Gly | Met | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Tyr | Leu | Glu | Arg | Ala | Pro | Trp | Gly | Val | Leu | Ala | Pro | | | | |
| | | | | 165 | | | | | 170 | | | | | | |

<210> 2051

<211> 411

<212> DNA

<213> Homo sapiens

<400> 2051

gagcaaaact atcgttctac cggcaatatt ctgaaaagtg ccaaccaact tatttcgaat
60
aatagtgatc gtctcggtaa gaatttatgg accgacggtg aaatggggga gccagtaggt
120
atttatgcag catttaatga attagatgag gcaaaatttg tggcgtctca aatccaaaat
180
tgggtagatg atgggtgggga attagatgat tgtgctgttt tatatcgtag taatagccaa
240
tctcgtgtta ttgaagaagc cttgattcgt tgccaaattc cttatcgaat ttatggcggg
300
atgcgattct tcgaacgcca agaaattaaa gatgcgttgg catatttacg tttaattaat
360
aatcgtcaag atgatgccgc atttgagcgt gtgattaata cgcctacgcg t
411

<210> 2052

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2052

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gln | Asn | Tyr | Arg | Ser | Thr | Gly | Asn | Ile | Leu | Lys | Ser | Ala | Asn | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ile | Ser | Asn | Asn | Ser | Asp | Arg | Leu | Gly | Lys | Asn | Leu | Trp | Thr | Asp |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Gly | Glu | Met | Gly | Glu | Pro | Val | Gly | Ile | Tyr | Ala | Ala | Phe | Asn | Glu | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Glu | Ala | Lys | Phe | Val | Ala | Ser | Gln | Ile | Gln | Asn | Trp | Val | Asp | Asp |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Gly | Glu | Leu | Asp | Asp | Cys | Ala | Val | Leu | Tyr | Arg | Ser | Asn | Ser | Gln |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Ser | Arg | Val | Ile | Glu | Glu | Ala | Leu | Ile | Arg | Cys | Gln | Ile | Pro | Tyr | Arg |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ile | Tyr | Gly | Gly | Met | Arg | Phe | Phe | Glu | Arg | Gln | Glu | Ile | Lys | Asp | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Leu | Ala | Tyr | Leu | Arg | Leu | Ile | Asn | Asn | Arg | Gln | Asp | Asp | Ala | Ala | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Arg | Val | Ile | Asn | Thr | Pro | Thr | Arg | | | | | | | |
| | 130 | | | | | | 135 | | | | | | | | |

<210> 2053

<211> 287

<212> DNA

<213> Homo sapiens

<400> 2053

nccatggaag ccttcaatct tgtaagagaa agtgaacagc tgttttccat atgccaaatc
60
ccgctcctct gctggatcct gtgtaccagt ctgaagcaag agatgcagaa aggaaaagac
120

ctggccctga cctgccagag cactacctct gtgtactcct ctttcgtctt taacctgttc
 180
 acacctgagg gtgccgaggg cccgactccg caaaccagc accagctgaa ggccctgtgc
 240
 tccctggctg cagagggtat gtggacagac acatttgagt tttgtga
 287

<210> 2054
 <211> 79
 <212> PRT
 <213> Homo sapiens

<400> 2054
 Ile Cys Gln Ile Pro Leu Leu Cys Trp Ile Leu Cys Thr Ser Leu Lys
 1 5 10 15
 Gln Glu Met Gln Lys Gly Lys Asp Leu Ala Leu Thr Cys Gln Ser Thr
 20 25 30
 Thr Ser Val Tyr Ser Ser Phe Val Phe Asn Leu Phe Thr Pro Glu Gly
 35 40 45
 Ala Glu Gly Pro Thr Pro Gln Thr Gln His Gln Leu Lys Ala Leu Cys
 50 55 60
 Ser Leu Ala Ala Glu Gly Met Trp Thr Asp Thr Phe Glu Phe Cys
 65 70 75

<210> 2055
 <211> 298
 <212> DNA
 <213> Homo sapiens

<400> 2055
 nnacgcgttg ttatgaacaa tgacggtgtc ctctaccccg atacctgcgt gggtactgat
 60
 tcccacacca ccatggaaaa tggctctggc attctgggct ggggcgtcgg tggatttgaa
 120
 gccgaggctg ctatgcttgg ccagcccatc tccatgctta tccccgtgt tgttggcttt
 180
 aaacttactg gccaaacaca gccgggtgtc accgctacag atgttggtct taccattact
 240
 gatatgcttc gccagcatgg tgtgggtgga aaattcgggg aattctatgg gggaagcg
 298

<210> 2056
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 2056
 Xaa Arg Val Val Met Asn Asn Asp Gly Val Leu Tyr Pro Asp Thr Cys
 1 5 10 15
 Val Gly Thr Asp Ser His Thr Thr Met Glu Asn Gly Leu Gly Ile Leu
 20 25 30
 Gly Trp Gly Val Gly Gly Ile Glu Ala Glu Ala Ala Met Leu Gly Gln
 35 40 45
 Pro Ile Ser Met Leu Ile Pro Arg Val Val Gly Phe Lys Leu Thr Gly

50 55 60
 Gln Thr Gln Pro Gly Val Thr Ala Thr Asp Val Val Leu Thr Ile Thr
 65 70 75 80
 Asp Met Leu Arg Gln His Gly Val Gly Gly Lys Phe Gly Glu Phe Tyr
 85 90 95
 Gly Gly Ser

<210> 2057
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 2057
 acgcgtcccc acagtaccga ctataacgga ggaaactatc aggaacggta taaaatttta
 60
 gcagaaattc gtaaggctct tgaagacgga gatcgccaaa aagccaaacg attagctgaa
 120
 caaaatctag ttggacaaa caacgccag tatggtcgtt atctagcctt tggatgatc
 180
 ttcattggtct tcaataacca gaaaaagggg ctggatacag ttacagacta tcaccgtggg
 240
 ttggatatca cagaagccac tactacaact tcttacaccc aagatggaac gacctttaa
 300
 agagaaacct tctcaagtta ccctgatgat gttactgtta ctcaactgac caaaaaggg
 360
 gacaaaaaac ttgattttac agtttggat agcttaacag aagatttact tgctaacgga
 420
 gactactcag cggaatattc taactacaag agtggccatg ttacgacaga cccaaatgg
 480
 atcctactaa aaggtacagt caaagataat ggcctccagt tcgcatccta tctaggaatt
 540
 aaaacggacg gaaaagttac tgttcatga
 569

<210> 2058
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 2058
 Met Val Phe Asn Asn Gln Lys Lys Gly Leu Asp Thr Val Thr Asp Tyr
 1 5 10 15
 His Arg Gly Leu Asp Ile Thr Glu Ala Thr Thr Thr Ser Tyr Thr
 20 25 30
 Gln Asp Gly Thr Thr Phe Lys Arg Glu Thr Phe Ser Ser Tyr Pro Asp
 35 40 45
 Asp Val Thr Val Thr His Leu Thr Gln Lys Gly Asp Lys Lys Leu Asp
 50 55 60
 Phe Thr Val Trp Asn Ser Leu Thr Glu Asp Leu Leu Ala Asn Gly Asp
 65 70 75 80
 Tyr Ser Ala Glu Tyr Ser Asn Tyr Lys Ser Gly His Val Thr Thr Asp
 85 90 95
 Pro Asn Gly Ile Leu Leu Lys Gly Thr Val Lys Asp Asn Gly Leu Gln

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 100 | | 105 | | 110 | | | | | | | | | | |
| Phe | Ala | Ser | Tyr | Leu | Gly | Ile | Lys | Thr | Asp | Gly | Lys | Val | Thr | Val | His |
| | 115 | | | 120 | | | | | | | | 125 | | | |

<210> 2059
 <211> 644
 <212> DNA
 <213> Homo sapiens

<400> 2059
 gaattcgtgc caccgtgcc atacttcgcc acgcaacaga gtgccgtcag cggattgggc
 60
 agcaatcgac ctgtaggact cagccatgat cgactgggca tcctcgtata gtcgcatgc
 120
 cgcaaccgcc tgcgcttcca agcctgcagc gacgtaagag gccctctcac aactgaacc
 180
 gatcgctcca gacaacgtgg aagcgataac ctgcgctcgc ttctgctgat tctgggcca
 240
 gctcgacaag aagaaccgca gaggggagac ggcttggtca gggagcgac cttcagcgtt
 300
 cgtcttggtc tccgggacag caaaaagcgg ggaatcagcc aggccacgct ccgtcatgag
 360
 tcggccgagg tccgcccgtta cctctctcat ggcttcaca ggaacgcggt cacacaccac
 420
 cgcatcgac gcgtgcctct cttgagcctc gttgaggaaa tcccacggca cagcgtcagc
 480
 gtagcgggct gctgaggtga caaagatcca cagatccgag gcctggagca actgagccgc
 540
 cagatcacga ttgcgggtca ccacagagtc gatgtccggg gcatcgagga tggccaaacc
 600
 tcgcggaatc cttgactccg cgacgagctg caaactcgac gcgt
 644

<210> 2060
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 2060
 Met Arg Glu Val Pro Ala Asp Leu Gly Arg Leu Met Thr Glu Arg Gly
 1 5 10 15
 Leu Ala Asp Ser Pro Leu Phe Ala Val Pro Glu Thr Lys Thr Asn Ala
 20 25 30
 Glu Gly Ala Leu Pro Asp Gln Ala Val Ala Pro Leu Arg Phe Phe Leu
 35 40 45
 Ser Ser Leu Ala Gln Asn Gln Lys Arg Arg Glu Val Ile Ala Ser
 50 55 60
 Thr Leu Ser Gly Ala Ile Gly Ser Val Cys Glu Arg Ala Ser Tyr Val
 65 70 75 80
 Ala Ala Gly Leu Glu Ala Gln Ala Val Ala Ala Ser Arg Leu Tyr Glu
 85 90 95
 Asp Ala Gln Ser Ile Met Ala Glu Ser Tyr Arg Ser Ile Ala Ala Gln
 100 105 110
 Ser Ala Asp Gly Thr Leu Leu Arg Gly Glu Val Leu Ala Arg Trp His

115
Glu Phe
130

120

125

<210> 2061
<211> 481
<212> DNA
<213> Homo sapiens

<400> 2061
gttaacctgg taaggagagc gacacaggaa ggtgcagggg ttgccatggt gtggccccag
60
atgctgtgat tacgcgccag ccccgtcaca ccgtacgggt ggtaggactg ggcaaagaag
120
acgccgccac ctggatgcac tgaggtgtgc acagccacgt ggagatgatg ctggggggctc
180
acgggtgactc tcaggaggcc ctggcctggc ctatctggag ccttctctgt gaaatgagggc
240
tggtaacgcc cactagcagg gttgtagggg acatggatct gtggccacct cctcaagggt
300
tgccacacgc accaggtcct gactgggagt ccggccccca gggcctgtgg atggctggcc
360
tggggcccagc ctccgcccc aaggggtgctg gcacctggca tgtgcccacac agttggggcc
420
ggctgggtggg aaggtgtgtg tcaggtggcg gagcctcggt gccaggatct cactcacgcg
480
t
481

<210> 2062
<211> 133
<212> PRT
<213> Homo sapiens

<400> 2062
Met Pro Gly Ala Ser Thr Leu Gly Gly Gly Gly Trp Ala Gln Ala Ser
1 5 10 15
His Pro Gln Ala Leu Gly Ala Gly Leu Pro Val Arg Thr Trp Cys Val
20 25 30
Trp Gln Pro Leu Arg Arg Trp Pro Gln Ile His Val Pro Tyr Asn Pro
35 40 45
Ala Ser Gly Arg Tyr Gln Pro His Phe Thr Glu Lys Ala Pro Asp Arg
50 55 60
Pro Gly Gln Gly Leu Leu Arg Val Thr Val Ser Pro Gln His His Leu
65 70 75 80
His Val Ala Val His Thr Ser Val His Pro Gly Gly Gly Val Phe Phe
85 90 95
Ala Gln Ser Tyr His Pro Tyr Gly Val Thr Gly Leu Ala Arg Asn His
100 105 110
Ser Ile Trp Gly His Thr Met Ala Thr Pro Ala Pro Ser Cys Val Ala
115 120 125
Leu Leu Thr Arg Leu
130

<210> 2063
 <211> 419
 <212> DNA
 <213> Homo sapiens

<400> 2063
 gccggcgccg tcgagcgcggt gcctttcaat atcgaggccc aagacatggt gctgctcatc
 60
 gcggacacca atgccccgca catgctttcc gacggccaat acgcctcccg ccggggcatc
 120
 atcgacgccc tccaatctgc cgccggttgc tccatccgcg agatctcgaa tgcggtggac
 180
 ttgcccga cagtcaatcc cgccgaggcg gaactctatc gccgccgctg gcaccacgtg
 240
 gtggaagaaa ccaaccggac cctagatgcc gctaccgcg tggcatcttc cgatctagat
 300
 acattccggc ggcttatgcg cgagagccac atctccctgc gcgaccttta tgaggtcacc
 360
 actccggagc tcgactccgt tttaccgcg gccggcgagc tgggcgctcg catgannnn
 419

<210> 2064
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 2064
 Ala Gly Ala Val Glu Arg Val Pro Phe Asn Ile Glu Ala Gln Asp Met
 1 5 10 15
 Val Leu Leu Ile Ala Asp Thr Asn Ala Pro His Met Leu Ser Asp Gly
 20 25 30
 Gln Tyr Ala Ser Arg Arg Gly Ile Ile Asp Ala Val Gln Ser Ala Ala
 35 40 45
 Gly Cys Ser Ile Arg Glu Ile Ser Asn Ala Val Asp Phe Ala Ala Thr
 50 55 60
 Val Asn Pro Ala Glu Ala Glu Leu Tyr Arg Arg Arg Val His His Val
 65 70 75 80
 Val Glu Glu Thr Asn Arg Thr Leu Asp Ala Ala Thr Ala Leu Ala Ser
 85 90 95
 Ser Asp Leu Asp Thr Phe Arg Arg Leu Met Arg Glu Ser His Ile Ser
 100 105 110
 Leu Arg Asp Leu Tyr Glu Val Thr Thr Pro Glu Leu Asp Ser Val Phe
 115 120 125
 Thr Ala Ala Gly Glu Leu Gly Ala Arg Met Xaa
 130 135

<210> 2065
 <211> 598
 <212> DNA
 <213> Homo sapiens

<400> 2065
 gccggcgcta tggcctctct gctcgccgac gccgccgatg cccttcccg cgcaaagggtg
 60

cgcgcgaccg ttactggatc ggcgggattg ggaaccgcag aggcattggg ccttactttc
 120
 attcaggagg tcatagctga gacggccgcc gtccaacgtt ggaatcccga cgccgacgtg
 180
 cttctcgaac tcgggtggtga ggatgccaaag atcacctacc ttaagccggt ccccgaacag
 240
 cgcatgaatg gttcgtgtgc tgggtggcacc ggtgccttca tcgaccagat ggctaccctg
 300
 ctgcacaccg acactcccgg cctcaatgac ctgcgcatccc gagccaagac catccatccg
 360
 atcgccctgc gctgtggtgt ttttgccaag tccgaccttc agccccctcat taacgagggg
 420
 gcccgcacag aggatctggc tgcctcgggc ctgcaggctg tcgccactca gtgcattgcc
 480
 ggccctggcat gtggctgccc gattcgaggt aaggtcatct tccttggcgg tccgcttcac
 540
 tttatgccaa gtttgcgaga cgctttctcg cgcgtcctcg acggttaaggt tgacgcgt
 598

<210> 2066

<211> 199

<212> PRT

<213> Homo sapiens

<400> 2066

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Ala | Met | Ala | Ser | Leu | Leu | Ala | Asp | Ala | Ala | Asp | Ala | Leu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ala | Lys | Val | Arg | Ala | Thr | Val | Thr | Gly | Ser | Ala | Gly | Leu | Gly | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Glu | Ala | Leu | Gly | Leu | Thr | Phe | Ile | Gln | Glu | Val | Ile | Ala | Glu | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ala | Val | Gln | Arg | Trp | Asn | Pro | Asp | Ala | Asp | Val | Leu | Leu | Glu | Leu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gly | Gly | Glu | Asp | Ala | Lys | Ile | Thr | Tyr | Leu | Lys | Pro | Val | Pro | Glu | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Arg | Met | Asn | Gly | Ser | Cys | Ala | Gly | Gly | Thr | Gly | Ala | Phe | Ile | Asp | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Met | Ala | Thr | Leu | Leu | His | Thr | Asp | Thr | Pro | Gly | Leu | Asn | Asp | Leu | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Arg | Ala | Lys | Thr | Ile | His | Pro | Ile | Ala | Ser | Arg | Cys | Gly | Val | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Lys | Ser | Asp | Leu | Gln | Pro | Leu | Ile | Asn | Glu | Gly | Ala | Arg | His | Glu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Asp | Leu | Ala | Ala | Ser | Val | Leu | Gln | Ala | Val | Ala | Thr | Gln | Cys | Ile | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Gly | Leu | Ala | Cys | Gly | Arg | Pro | Ile | Arg | Gly | Lys | Val | Ile | Phe | Leu | Gly |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Gly | Pro | Leu | His | Phe | Met | Pro | Ser | Leu | Arg | Asp | Ala | Phe | Ser | Arg | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Asp | Gly | Lys | Val | Asp | Ala | | | | | | | | | |
| | | | 195 | | | | | | | | | | | | |

<210> 2067

<211> 366

<212> DNA

<213> Homo sapiens

<400> 2067

ttccagcaga tgctgcaaac ctggaccgc agcggcacgc tgcaggaggc cgtggccaac
 60
 aagatcgccg aatggctgga tgccgacctg caacagtggg acatttcccg cgatgcaccg
 120
 tacttcggtt tcgagatccc gggcgagcca ggcaagtatt tctacgtgtg gctggacgcg
 180
 ccgatcggtt acatggccag tttcaagaac ctgtgcgacc gcacgccgga gctggacttc
 240
 gatgctttct gggccaagga ctccaccgcc gagctgtacc atttcacgga caaggacatc
 300
 gtcaacttcc acgccctgtt ctggccggcg atgctcgaag gctcgggcta ccgtaaaccg
 360
 accggt
 366

<210> 2068

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2068

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gln | Gln | Met | Leu | Gln | Thr | Trp | Thr | Arg | Ser | Gly | Thr | Leu | Gln | Glu |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Ala | Val | Ala | Asn | Lys | Ile | Ala | Glu | Trp | Leu | Asp | Ala | Asp | Leu | Gln | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Asp | Ile | Ser | Arg | Asp | Ala | Pro | Tyr | Phe | Gly | Phe | Glu | Ile | Pro | Gly |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Glu | Pro | Gly | Lys | Tyr | Phe | Tyr | Val | Trp | Leu | Asp | Ala | Pro | Ile | Gly | Tyr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Met | Ala | Ser | Phe | Lys | Asn | Leu | Cys | Asp | Arg | Thr | Pro | Glu | Leu | Asp | Phe |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Ala | Phe | Trp | Ala | Lys | Asp | Ser | Thr | Ala | Glu | Leu | Tyr | His | Phe | Ile |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Lys | Asp | Ile | Val | Asn | Phe | His | Ala | Leu | Phe | Trp | Pro | Ala | Met | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Gly | Ser | Gly | Tyr | Arg | Lys | Pro | Thr | Gly | | | | | | |
| | | | 115 | | | | | 120 | | | | | | | |

<210> 2069

<211> 280

<212> DNA

<213> Homo sapiens

<400> 2069

cctagagagg atggtggaga ctgtgcgtgt gcagggtgtt ccggaacctt ccctgggatg
 60
 catggggcct cgccgcaggc catctctcca gacctgggct caccctgccc ctgtgctgtt
 120
 gcctttggct ggaattccac cccagccttc ttgcctcaag aacgcccttc ccccttcaga
 180

tctcatgggc acaggccccg tcttcctaaa cggggtcaga gccccagta atcatgacaa
 240
 agaccctctc ctcgatcaag ctttgggtcaa gctcctaccc
 280

<210> 2070
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 2070
 Met Val Glu Thr Val Arg Val Gln Gly Val Pro Glu Pro Ser Leu Gly
 1 5 10 15
 Cys Met Gly Pro Arg Arg Arg Pro Ser Leu Gln Thr Trp Ala His Pro
 20 25 30
 Ala Pro Val Leu Leu Pro Leu Ala Gly Ile Pro Pro Gln Pro Ser Cys
 35 40 45
 Leu Lys Asn Ala Leu Pro Pro Ser Asp Leu Met Gly Thr Gly Pro Val
 50 55 60
 Phe Leu Asn Gly Val Arg Ala Pro Ser Asn His Asp Lys Asp Pro Leu
 65 70 75 80
 Leu Asp Gln Ala Leu Val Lys Leu Leu Pro
 85 90

<210> 2071
 <211> 399
 <212> DNA
 <213> Homo sapiens

<400> 2071
 acgctgtgcc agcagactta gaaagcaggt tcctcttgct atacagcacg ttaacatagc
 60
 tgacgaggcc tgggtgtctt catcagtact gtgatgactc tttcaccttt gacttcagat
 120
 gctggcgctt tttacttttt gtgccaaact ctacacatga aacacttttg gaataactac
 180
 agacatgact ttctttatct ggggaaaagg agggcattaa accagattag gggctgggag
 240
 gggaggttgt caggggatga gctgctcctg aggaagaggc agagatcaag cttcactcag
 300
 cagctggatt ctcacctagt ttatagactg aaatcctgca aggtgggttac aacagtgaac
 360
 aatatgttca tacataaaga ctctaccctc aggtgatca
 399

<210> 2072
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 2072
 Met Thr Leu Ser Pro Leu Thr Ser Asp Ala Gly Ala Phe Tyr Phe Leu
 1 5 10 15
 Cys Gln Thr Leu His Met Lys His Phe Trp Asn Asn Tyr Arg His Asp

```

      20      25      30
Phe Leu Tyr Leu Gly Lys Arg Arg Ala Leu Asn Gln Ile Arg Gly Trp
      35      40      45
Glu Gly Arg Leu Ser Gly Asp Glu Leu Leu Leu Arg Lys Arg Gln Arg
      50      55      60
Ser Ser Phe Thr Gln Gln Leu Asp Ser His Leu Val Tyr Arg Leu Lys
65      70      75      80
Ser Cys Lys Val Val Thr Thr Val Asn Asn Met Phe Ile His Lys Asp
      85      90      95
Ser Thr Leu Arg
      100

```

<210> 2073
 <211> 339
 <212> DNA
 <213> Homo sapiens

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<400> 2073
ggatccactt ctgtgccttt ccagcttcta gaggtgcct gcgttccttg gctcgtggcc
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cttctctcca ccttcaagcc agcagcggag gcttgagtcc ttctcatgcc atctctctgt
120
tctctctcct gcctctctct ccacactgaa ggacccctgt gatcacactg gccccccac
180
cggatgaccc aggataatcc atctccctgt ttgaaggctg gctgattagc aaccttcatt
240
ccatctgcct ccttcattcc ccctggccat gtaatgggat tcacagcttc tggggattag
300
gacatggaca tcttgtggcg ggggcataat tctgtcgac
339

```

<210> 2074
 <211> 85
 <212> PRT
 <213> Homo sapiens

```

<400> 2074
Met Lys Glu Ala Asp Gly Met Lys Val Ala Asn Gln Pro Thr Phe Lys
1      5      10      15
Gln Gly Asp Gly Leu Ser Trp Val Ile Arg Trp Gly Gly Gln Cys Asp
      20      25      30
His Arg Gly Pro Ser Val Trp Arg Arg Arg Gln Glu Arg Glu Gln Arg
      35      40      45
Asp Gly Met Arg Arg Thr Gln Ala Ser Ala Ala Gly Leu Lys Val Glu
50      55      60
Glu Gly Ala Thr Ser Gln Gly Thr Gln Ala Ala Ser Arg Ser Trp Lys
65      70      75      80
Gly Thr Glu Val Asp
      85

```

<210> 2075
 <211> 481
 <212> DNA
 <213> Homo sapiens

<400> 2075

ntggccaggt tgacctcaaa ggtgtacatt gttttatgtg gcgacaatgg actgtcagaa
 60
 accaaggagc tctcctgtcc agagaagtcc ctgtttgaaa ggaattccag acacaccttt
 120
 atcctgagcg ctcttgccca actgggcctg ctgaggaaga tccgcctctg gcacgacagc
 180
 cgtgggcctt ccccaggctg gttcatcagc cacgtgatgg tgaaggagct gcacacggga
 240
 cagggtggt tcttccctgc ccagtgtctg ctgtctgccg gcaggcatga tggctgcgtg
 300
 gagcgggagc tcacctgtct gcaaggggga ctgcgcttct ggaagctttt ctattgcaag
 360
 ttcacagagt acctggagga tttccatgtc tggctgtcgg tgtacagcag gccctcctcc
 420
 agccgctacc tgcacacgcc gcgccccacc gtgtccttct ccctgctgtg cgtctacgcg
 480
 t
 481

<210> 2076

<211> 160

<212> PRT

<213> Homo sapiens

<400> 2076

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Arg | Leu | Thr | Ser | Lys | Val | Tyr | Ile | Val | Leu | Cys | Gly | Asp | Asn |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Gly | Leu | Ser | Glu | Thr | Lys | Glu | Leu | Ser | Cys | Pro | Glu | Lys | Ser | Leu | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Arg | Asn | Ser | Arg | His | Thr | Phe | Ile | Leu | Ser | Ala | Pro | Ala | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Leu | Leu | Arg | Lys | Ile | Arg | Leu | Trp | His | Asp | Ser | Arg | Gly | Pro | Ser |
| | | 50 | | | | 55 | | | | 60 | | | | | |
| Pro | Gly | Trp | Phe | Ile | Ser | His | Val | Met | Val | Lys | Glu | Leu | His | Thr | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gln | Gly | Trp | Phe | Phe | Pro | Ala | Gln | Cys | Trp | Leu | Ser | Ala | Gly | Arg | His |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Asp | Gly | Arg | Val | Glu | Arg | Glu | Leu | Thr | Cys | Leu | Gln | Gly | Gly | Leu | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Trp | Lys | Leu | Phe | Tyr | Cys | Lys | Phe | Thr | Glu | Tyr | Leu | Glu | Asp | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Val | Trp | Leu | Ser | Val | Tyr | Ser | Arg | Pro | Ser | Ser | Ser | Arg | Tyr | Leu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| His | Thr | Pro | Arg | Pro | Thr | Val | Ser | Phe | Ser | Leu | Leu | Cys | Val | Tyr | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

<210> 2077

<211> 1410

<212> DNA

<213> Homo sapiens

<400> 2077

ncagagtgtt ttgagctatc tggatccca aatgatgtga atactttcag aaaccaatgg
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caaattgaac ccaactgttt gcgaattcgg cagcagtaaa gatctttttt ttttttttgt
120
tttttttttt tttttttttt ttttgcttcc taaagtggct ttaatatcac acaagcggct
180
cttttgtcta cagtgaagaga aaacagaggg agccaggaaa ggctccccgc tggcctctgg
240
agtccaggag ccttaggaag gctgaaacaa gccctgacca gcaggcttag ttgtcctgag
300
aagagccagt gaggccacct ggtccagttc accaggtttc ccagggaagc acaggcatct
360
ctgggtcccc gagcacagtg ccagggaaga ccccccaat ccccatctga acaggccgag
420
ggcagcatgg gaaaggctca gactgcaggt tcatcccgca ggatggtaag gacacgtgct
480
cctccctcgc aagagcaggc ttgtgcacag cccggcacag ggccagccag ggcgccccct
540
gcggctgtgc agcgcttacc agggggagga gttcagccat caggaccttt tccaagtgga
600
tctgctggtc cagcacagcc actcgcagct tgagggccgc cagggtctgc agctcctggg
660
tgctggagta gacaagcagc tgggnnggct ccatgcaggc tccgctctac cccacagga
720
cggcgaggct ccggggggcc tnnccccaca gacatggtct tggtagctgt tccgccaccg
780
ctgcacgcag ctctgcagc ctgtgcagac actggccac catggcctgc agccctcca
840
gcgtgagcag gcagcgtac tcctgcaccc agtccatggg ggctgctgag agctcctccc
900
tcatgcgcag tctcagcagc gagcaggcct tccgcaggcg ccccgctcc gcctccacct
960
ccacagcact gagcctgggc tggggccgc ctgaagctgt ctgcatgttc tggaggaact
1020
gggttttggc agcggcgga tccgtggaat cactggtctg tgtggaactg agctgggccc
1080
acaggctcga gttctggga gctgctttcc tgaatgccgc aggcagccgc agcagggtgcc
1140
ccttctcctt gagtgtgaag gcttctgggg cctgaggagc agcggatggg gccatttgc
1200
ggtccctgag gcccgcacca ggccctgggg ttcgggctcc catcccaaca cgggtcccat
1260
ccccactga cagcagccgg cgctcagggt ggcccttggc aggcaccgtg gtctggcgga
1320
ggcccttggg gggctctctg tctgaagcat ggccaccagc ttggcctggg gaatgcggtg
1380
ggcgaggagc tgctgtgcca gaagaggtga
1410

<210> 2078

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2078

Gly His Leu Val Gln Phe Thr Arg Phe Pro Arg Glu Ala Gln Ala Ser
 1 5 10 15
 Leu Gly Pro Arg Ala Gln Cys Gln Gly Arg His Pro Gln Ser Pro Ser
 20 25 30
 Glu Gln Ala Glu Gly Ser Met Gly Lys Ala Gln Thr Ala Gly Ser Ser
 35 40 45
 Arg Arg Met Val Arg Thr Arg Ala Pro Pro Ser Gln Glu Gln Ala Cys
 50 55 60
 Ala Gln Pro Gly Thr Gly Pro Ala Arg Ala Ala Pro Ala Ala Val Gln
 65 70 75 80
 Arg Leu Pro Gly Gly Gly Val Gln Pro Ser Gly Pro Phe Pro Ser Gly
 85 90 95
 Ser Ala Gly Pro Ala Gln Pro Leu Ala Ala
 100 105

<210> 2079

<211> 565

<212> DNA

<213> Homo sapiens

<400> 2079

atttacctcg caaccgaccc tgatcgtgaa ggtgaaagca tcagctggca catccagcag
 60
 gtactggcgg tcaaactcta caaacgcatt accttcaacg agatcactct caagcgcgtt
 120
 gaagaggcac tggccaatcc tcgacaaatc gatctgaaca gagttgcctc acaggaatgc
 180
 cggcgtgtgc ttgaccgctt ggtgggggtac ctggtgaccc aagagttgcg gcgcctgatg
 240
 ggcaaacctta cttccgctgg ccgcgttcaa tcaccgcgcg tgtttcttgt ggtcttgccg
 300
 gaacgcgaga tccgcaactt tcaggtgatc aatcactttg gcgtgcgtct gttctttgccc
 360
 gatgtaagtc ggggcaccac ttggtatgcc gagtggcaac cggtagcgga tttcgcaagc
 420
 aagcacttcc cctatgttca ggatagcaac ctggctcagc acgtcgccgg cactcgaaat
 480
 gtggtcgtgg agtcctgcga ggatcgcaag gccgagcgtc atcctcctgc accattcatc
 540
 tcatccactc ttcaacaggc cgcca
 565

<210> 2080

<211> 188

<212> PRT

<213> Homo sapiens

<400> 2080

Ile Tyr Leu Ala Thr Asp Pro Asp Arg Glu Gly Glu Ser Ile Ser Trp
 1 5 10 15
 His Ile Gln Gln Val Leu Ala Val Lys Ser Tyr Lys Arg Ile Thr Phe
 20 25 30
 Asn Glu Ile Thr Leu Lys Arg Val Glu Glu Ala Leu Ala Asn Pro Arg

35 40 45
 Gln Ile Asp Leu Asn Arg Val Ala Ser Gln Glu Cys Arg Arg Val Leu
 50 55 60
 Asp Arg Leu Val Gly Tyr Leu Val Thr Gln Glu Leu Arg Arg Leu Met
 65 70 75 80
 Gly Lys Pro Thr Ser Ala Gly Arg Val Gln Ser Pro Ala Val Phe Leu
 85 90 95
 Val Val Leu Arg Glu Arg Glu Ile Arg Asn Phe Gln Val Ile Asn His
 100 105 110
 Phe Gly Val Arg Leu Phe Phe Ala Asp Val Ser Arg Gly Thr Thr Trp
 115 120 125
 Tyr Ala Glu Trp Gln Pro Val Pro Asp Phe Ala Ser Lys His Phe Pro
 130 135 140
 Tyr Val Gln Asp Ser Asn Leu Ala Gln His Val Ala Gly Thr Arg Asn
 145 150 155 160
 Val Val Val Glu Ser Cys Glu Asp Arg Lys Ala Glu Arg His Pro Pro
 165 170 175
 Ala Pro Phe Ile Ser Ser Thr Leu Gln Gln Ala Ala
 180 185

<210> 2081

<211> 319

<212> DNA

<213> Homo sapiens

<400> 2081

aagcttatgg aaaaacgggg atacggagag gaggatataa atcgctataa aatgatgaca
 60
 aggttccatc atcaacgggt tccactagta attttggtgt gtggaactgc ctgtactgga
 120
 aaatcaacaa tcgctacaca acttgctcag aggtcatt tgcctaattgt tttgcagacg
 180
 gacatgggtgt atgagctgct gcggacatca acagatgcgc cacttacttc agttcctgtg
 240
 tgggctcgcg attttaattc acctgaagag cttatcactg aattctgcag agaatgcaga
 300
 gttgtacgca agggtttgg
 319

<210> 2082

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2082

Lys Leu Met Glu Lys Arg Gly Tyr Gly Glu Glu Tyr Ile Asn Arg Tyr
 1 5 10 15
 Lys Met Met Thr Arg Phe His His Gln Arg Val Pro Leu Val Ile Leu
 20 25 30
 Val Cys Gly Thr Ala Cys Thr Gly Lys Ser Thr Ile Ala Thr Gln Leu
 35 40 45
 Ala Gln Arg Leu Asn Leu Pro Asn Val Leu Gln Thr Asp Met Val Tyr
 50 55 60
 Glu Leu Leu Arg Thr Ser Thr Asp Ala Pro Leu Thr Ser Val Pro Val

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<210> 2085
<211> 478
<212> DNA
<213> Homo sapiens
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<400> 2085
 nnggatccca aagaccgca tattgccatg gtgttccaaa actatgccct ctaccgcac
 60
 atgactgtcg ccgacaacat gggttttgcc ctcaaactgg cgaaagtgga taagaaagaa
 120
 atccggcgctc gcgtggagga agccgccgaa ctctcgacc tcaccgacta tctggaccgc
 180
 aaacccaagg cactctccgg tggccagcgg cagcgcgctcg ccatggggcg cgctattgtt
 240
 cgttcccccc gcgtcttctt gatggacgag cctctttcta acctggatgc gcgtctgcgt
 300
 gtccgcaccc gcgccagat tgcggaactg cagcgccgcc tgggcaccac caccgtttat
 360
 gtcacccatg accaggtgga ggctatgacg atgggggatc gtgtggctgt tctctgtgcc
 420
 gggaaactgc agcaggtgga tactccacgt aatcttttcg accaccccg c taacgcgt
 478

<210> 2086
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 2086
 Xaa Asp Pro Lys Asp Arg Asp Ile Ala Met Val Phe Gln Asn Tyr Ala
 1 5 10 15
 Leu Tyr Pro His Met Thr Val Ala Asp Asn Met Gly Phe Ala Leu Lys
 20 25 30
 Leu Ala Lys Val Asp Lys Lys Glu Ile Arg Arg Arg Val Glu Glu Ala
 35 40 45
 Ala Glu Leu Leu Asp Leu Thr Asp Tyr Leu Asp Arg Lys Pro Lys Ala
 50 55 60
 Leu Ser Gly Gly Gln Arg Gln Arg Val Ala Met Gly Arg Ala Ile Val
 65 70 75 80
 Arg Ser Pro Arg Val Phe Leu Met Asp Glu Pro Leu Ser Asn Leu Asp
 85 90 95
 Ala Arg Leu Arg Val Arg Thr Arg Ala Gln Ile Ala Glu Leu Gln Arg
 100 105 110
 Arg Leu Gly Thr Thr Thr Val Tyr Val Thr His Asp Gln Val Glu Ala
 115 120 125
 Met Thr Met Gly Asp Arg Val Ala Val Leu Cys Ala Gly Lys Leu Gln
 130 135 140
 Gln Val Asp Thr Pro Arg Asn Leu Phe Asp His Pro Ala Asn Ala
 145 150 155

<210> 2087
 <211> 731
 <212> DNA
 <213> Homo sapiens

<400> 2087
 gataattctc tacacggcat gagctgggga cgtacccccc ttgccaacgt cacctcacgg
 60

tcgtaccgtg gtgattagca gctagccgag gcgctagccg ccatataaga ttcccaaatt
 120
 aaaagaaaaa gcattgcgtc ggccaagaat tgctgtcgct gctgcaacgg ctactgcgtc
 180
 ggtcggatca atcgagcaa tcacccctc cccaggcag aagctaactc caataggcca
 240
 cgctcggtag ctcaagccgc tatcgccacg gatggaaagg ggataatcaa caaggactgc
 300
 cgtgatgcag tcatcaacga tgcaaagctg cgtgccgga ttgccggtgc gttgggtaag
 360
 gctggattta gttccgcga cgcggtggct ctacgcccgc gtattgccag agaaatggca
 420
 aaagagggcg tcctcctcat caaccaccac aagctaaagg ctctcatcgg agcccagggtg
 480
 ggtctgctca ctgatgcgaa gatccagcgt gctgccgctg cagtggacct cggcatcaaa
 540
 gccactctag ctgcgacaat cattcccaac gcgctgcatt cagcggcatt caaggatgcg
 600
 gtggtcgcaa atcttgctgc cgccggtctg acaagaagtt ggcaaaggct acggctgtcg
 660
 ccattgccgc aactgcgctc aatcccgtc tcgggccgat cgcaaagact gaggccatta
 720
 aggtgagat c
 731

<210> 2088

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2088

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Lys | Glu | Gly | Val | Leu | Leu | Ile | Asn | His | His | Lys | Leu | Lys | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ile | Gly | Ala | Gln | Val | Gly | Leu | Leu | Thr | Asp | Ala | Lys | Ile | Gln | Arg |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Ala | Ala | Ala | Ala | Val | Asp | Leu | Gly | Ile | Lys | Ala | Thr | Leu | Ala | Ala | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Ile | Pro | Asn | Ala | Leu | His | Ser | Ala | Ala | Phe | Lys | Asp | Ala | Val | Val |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ala | Asn | Leu | Val | Ala | Ala | Gly | Leu | Thr | Arg | Ser | Trp | Gln | Arg | Leu | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Ser | Pro | Leu | Pro | Gln | Leu | Arg | Ser | Ile | Pro | Leu | Ser | Gly | Arg | Ser |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gln | Arg | Leu | Arg | Pro | Leu | Arg | Leu | Arg | | | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 2089

<211> 315

<212> DNA

<213> Homo sapiens

<400> 2089

accgggtgtgg accagggtca gctgcgcgac gccatgtttt cctaccttcc ccaccacaag
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ctcggggaat tcgacatcga tctgttgctg gaccatcgcg attcccgta gcccatcatc
 120
 ttcgacaccg accacttcga ggggtacgag cgcccccgcc tcgtgctgca cgaagtcacc
 180
 gatcaacttg gccaaagcgtt ccttgatttg gaaggcccag agccggctct cggctgggaa
 240
 tcgttggttg cgtctctcac gagtcttgtc gactctatgg ggatccgtct gaccggcatt
 300
 accgattcga tcccg
 315

<210> 2090

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2090

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Gly | Val | Asp | Gln | Ala | Gln | Leu | Arg | Asp | Ala | Met | Phe | Ser | Tyr | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | His | His | Lys | Leu | Gly | Glu | Phe | Asp | Ile | Asp | Leu | Leu | Leu | Asp | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Asp | Ser | Arg | Gln | Pro | Ile | Ile | Phe | Asp | Thr | Asp | His | Phe | Glu | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Glu | Arg | Pro | Arg | Leu | Val | Leu | His | Glu | Val | Thr | Asp | Gln | Leu | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Ala | Phe | Leu | Val | Leu | Glu | Gly | Pro | Glu | Pro | Ala | Leu | Gly | Trp | Glu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Leu | Val | Ala | Ser | Leu | Thr | Ser | Leu | Val | Asp | Ser | Met | Gly | Ile | Arg |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Thr | Gly | Ile | Thr | Asp | Ser | Ile | Pro | | | | | | | |
| | | 100 | | | | | | 105 | | | | | | | |

<210> 2091

<211> 322

<212> DNA

<213> Homo sapiens

<400> 2091

actcttgtcc attgtctctg tctctgcgtt tttctctctg tctctctgtg tctctgtctc
 60
 tgtgtccctg tccagttctg tnnctgtgtg tgcgcgcata tctctctgtg tctctgttng
 120
 agtctctgtc tcttttctct ctgtctctct ctgtgtctct gccattttg gtctctgctt
 180
 tctttctctct gtgtgtctct ccatttctgt ctctcttctct ctgtctctct ccatttctgt
 240
 ctctgtctct tttctctctg tgtgtctctt ttgtctctct gtttctctgc gtgtctctgt
 300
 ccatttctgt cccttcacgc gt
 322

<210> 2092

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2092

```

Thr Leu Val His Cys Leu Cys Leu Cys Val Phe Leu Ser Val Ser Leu
 1           5           10           15
Cys Leu Cys Leu Cys Val Pro Val Gln Phe Cys Xaa Cys Val Cys Ala
 20           25           30
His Leu Ser Leu Cys Leu Cys Xaa Ser Leu Cys Leu Phe Cys Leu Cys
 35           40           45
Leu Ser Leu Cys Leu Cys Pro Phe Trp Ser Leu Leu Ser Phe Leu Cys
 50           55           60
Val Ser Leu His Phe Cys Leu Ser Ser Ser Val Ser Leu His Phe Cys
 65           70           75           80
Leu Cys Ser Phe Ser Leu Cys Val Ser Leu Leu Ser Leu Cys Phe Ser
 85           90           95
Ala Cys Leu Cys Pro Phe Leu Ser Leu His Ala
 100           105

```

<210> 2093

<211> 324

<212> DNA

<213> Homo sapiens

<400> 2093

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gccggcggtca tgcaaacgat caaggtggcg caatttcgcc tctgccatag tcgaaaaatg
 60
tttgtggtgg cctaccgcg agagaccag gagatggtgc tcgatgcgca taaccgcgcc
 120
tttgcgttct ttggcggcgt accgcagcgg gttatctacg acaaccttaa aaccgcagtg
 180
gatgcgatct tggtcggcaa ggatcgaatc ttcaaccggc gcttcctggc gttggctaata
 240
cattacctgt ttgaacctgt agcctgtacg cctgctgctg gctgggagaa gggccaagtt
 300
gagaatcaag ttcgcaacat acgc
 324

```

<210> 2094

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2094

```

Ala Gly Val Met Gln Thr Ile Lys Val Ala Gln Phe Arg Leu Cys His
 1           5           10           15
Ser Arg Lys Met Phe Val Val Ala Tyr Pro Arg Glu Thr Gln Glu Met
 20           25           30
Val Leu Asp Ala His Asn Arg Ala Phe Ala Phe Gly Gly Val Pro
 35           40           45
Gln Arg Val Ile Tyr Asp Asn Leu Lys Thr Ala Val Asp Ala Ile Leu
 50           55           60
Val Gly Lys Asp Arg Ile Phe Asn Arg Arg Phe Leu Ala Leu Ala Asn
 65           70           75           80
His Tyr Leu Phe Glu Pro Val Ala Cys Thr Pro Ala Ala Gly Trp Glu

```

85 90 95
 Lys Gly Gln Val Glu Asn Gln Val Arg Asn Ile Arg
 100 105

<210> 2095
 <211> 402
 <212> DNA
 <213> Homo sapiens

<400> 2095
 cccgtcacag accaggaaga agcagacaat atgatcgctt ctttcgacac ttatgttcgc
 60
 accctgcccc ccgccgcaaa tcttctgctt aaacaattcc atattgtgga tgttgcccg
 120
 cgcgtggtgg gcgtgggttc agtgggcacc cactccctgg tactgctact gtccggcccc
 180
 aatgatgaac ctcttgtgct gcaagtgaag gaagccctcc ccagtgtcct caccacccat
 240
 gggaaactgc cggatgcttt ttcggaactg tccgctgggg actcctccgg gctcctcccc
 300
 gataatcttg ataagcatat taaagccggc aatggctacc ggggtggtggc gtgccagcag
 360
 attctgcagg cccactcgga tccgctgctg ggggtggacgc gt
 402

<210> 2096
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 2096
 Pro Val Thr Asp Gln Glu Glu Ala Asp Asn Met Ile Ala Ser Phe Asp
 1 5 10 15
 Thr Tyr Val Arg Thr Leu Pro Pro Ala Ala Asn Leu Leu Leu Lys Gln
 20 25 30
 Phe His Ile Val Asp Val Ala Arg Arg Val Val Gly Val Gly Ser Val
 35 40 45
 Gly Thr His Ser Leu Val Leu Leu Leu Ser Gly Pro Asn Asp Glu Pro
 50 55 60
 Leu Val Leu Gln Val Lys Glu Ala Leu Pro Ser Val Leu Thr Thr His
 65 70 75 80
 Gly Lys Leu Pro Asp Ala Phe Ser Glu Leu Ser Ala Gly Asp Ser Ser
 85 90 95
 Gly Leu Leu Pro Asp Asn Leu Asp Lys His Ile Lys Ala Gly Asn Gly
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 <212> DNA
 <213> Homo sapiens

<400> 2097

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<211> 213

<212> PRT

<213> Homo sapiens

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| Xaa | Phe | Leu | Thr | Arg | Pro | Pro | Ala | Ser | Ser | Ala | Ala | Val | Gly | Ser | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Pro | Pro | Glu | Ala | Glu | Gln | Ala | Trp | Pro | Gln | Ser | Ser | Gly | Glu | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Leu | Gln | Leu | Gln | Leu | Ala | Leu | Ala | Met | Ser | Lys | Glu | Glu | Ala | Asp |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Gln | Val | Leu | Gly | Val | Gln | Leu | Gly | Leu | Ser | Val | Arg | His | Pro | Pro | Pro |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Arg | Leu | Thr | Ser | Gly | Ser | Leu | Pro | Ala | Arg | Arg | Gly | Pro | Gly | Pro | His |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Cys | Arg | Cys | Ser | Thr | Cys | Cys | His | Ser | Ser | Pro | Pro | Gln | Ser | Cys | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ile | Leu | Thr | Pro | Pro | Ser | Leu | Cys | Val | Ser | Leu | Ser | Ala | Cys | Pro | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Trp | Phe | Arg | Asp | Pro | Gln | Pro | Leu | Phe | Ile | Arg | Leu | Tyr | Leu | Thr | Leu |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Ala | Leu | Pro | Leu | Thr | Leu | Pro | Leu | Ala | Pro | Pro | Val | Met | Pro | Leu | Thr |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Leu | Ser | Leu | Pro | Gln | Pro | Pro | Ser | Cys | Gly | Pro | Glu | Asp | Asp | Ala | Gln |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Leu | Gln | Leu | Ala | Leu | Ser | Leu | Ser | Arg | Glu | Glu | His | Asp | Lys | Val | Arg |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Ala | Ala | Ser | Leu | Ser | Leu | Pro | Leu | Pro | Gly | Ala | Pro | Leu | Arg | Pro | Ala |

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 Pro Arg Val Cys Pro Gln Thr Ser Leu Pro Arg His Leu Leu His Asp
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 Pro Gly Gly Gly Arg Gln Trp Gln Tyr Ser Val Gln Val Ser Ser Glu
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<210> 2102

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<212> PRT

<213> Homo sapiens

<400> 2102

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| Met | Gly | Arg | Asp | Glu | Leu | Pro | Leu | Pro | Thr | Ala | Thr | Ser | Leu | Ala | Leu |
| 1 | | | 5 | | | | | | 10 | | | | 15 | | |
| Cys | Gly | Leu | Asn | His | Asp | Lys | Asn | Glu | Leu | Leu | Ala | Ser | Leu | Leu | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Leu | Asp | Glu | Leu | Leu | Thr | Val | Trp | Leu | Glu | Thr | Gly | Thr | Val | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Gln | Tyr | Val | Ala | Arg | Cys | Asp | Thr | Ile | Gly | Thr | Pro | Val | Arg | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Thr | Phe | Asp | Pro | Glu | Ile | Val | Gly | Gly | Gly | Glu | Gly | Ala | Ile | Glu | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ile | Gly | Val | Asp | Val | Asp | Val | Asp | Gly | Ala | Ile | Val | Val | Glu | Thr | Ser |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asp | Gly | Arg | Arg | Ser | Phe | Asn | Ala | Ala | Asp | Val | His | His | Leu | Arg | Thr |
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<210> 2103

<211> 459

<212> DNA

<213> Homo sapiens

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<210> 2104

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<212> PRT

<213> Homo sapiens

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| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| His | Thr | Ile | Ala | Met | Ile | Met | Ala | Ala | Val | Arg | Gln | Ile | Pro | Ala | His |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| His | Glu | Leu | Leu | Ala | Ser | Gly | Val | Trp | Glu | Gly | Asp | Ala | Tyr | Arg | Tyr |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Asp | Gln | Val | Gly | Met | Glu | Ile | Lys | Gly | Asn | Asp | Val | Gly | Ile | Val | Gly |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Cys | Gly | Ala | Val | Gly | Cys | Arg | Val | Ala | Ala | Val | Met | Ala | Ala | Met | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Thr | Val | Arg | Val | Phe | Asp | Pro | Trp | Ala | Thr | Pro | Asp | Ser | Phe | Pro |
| | | 85 | | | | | 90 | | | | | | 95 | | |
| Ala | Gly | Val | Met | Ala | Cys | Asp | Asp | Leu | Asp | Glu | Val | Leu | Arg | Leu | Ser |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Arg | Ile | Leu | Thr | Leu | His | Ala | Arg | Ala | Asn | Glu | Asp | Asn | Arg | His | Met |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Ile | Gly | Val | Glu | Gln | Leu | Ala | Glu | Met | Pro | Asp | Gly | Ser | Val | Leu | Val |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Asn | Cys | Ala | Arg | Gly | Ser | Leu | Val | Asp | | | | | | | |
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<210> 2105

<211> 4057

<212> DNA

<213> Homo sapiens

<400> 2105

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<211> 240

<212> PRT

<213> Homo sapiens

<400> 2106

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Ala | Pro | Ser | Ser | Leu | Thr | Pro | Ser | Ser | Glu | Leu | Ser | Ser | Pro | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Ser | Glu | Leu | Thr | Asn | Met | Asp | Leu | Ala | Ala | Leu | Phe | Ser | Asp | Thr |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Pro | Ala | Asn | Ala | Ser | Gly | Ser | Ala | Gly | Gly | Ser | Asp | Glu | Ala | Leu | Asn |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ser | Gly | Ile | Leu | Thr | Ile | Asp | Val | Thr | Ser | Val | Ser | Ser | Ser | Leu | Gly |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Gly | Asn | Leu | Pro | Ala | Asn | Asn | Ser | Ser | Leu | Gly | Pro | Met | Glu | Pro | Leu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Leu | Val | Ala | His | Ser | Asp | Ile | Pro | Pro | Ser | Leu | Asp | Ser | Pro | Leu |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Val | Leu | Gly | Thr | Ala | Ala | Thr | Val | Leu | Gln | Gln | Gly | Ser | Phe | Ser | Val |
| | | 115 | | | | 120 | | | | | 125 | | | | |
| Asp | Asp | Val | Gln | Thr | Val | Ser | Ala | Gly | Ala | Leu | Gly | Cys | Leu | Val | Ala |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Leu | Pro | Met | Lys | Asn | Leu | Ser | Asp | Asp | Pro | Leu | Ala | Leu | Thr | Ser | Asn |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Ser | Asn | Leu | Ala | Ala | His | Ile | Thr | Thr | Pro | Thr | Ser | Ser | Ser | Thr | Pro |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Arg | Glu | Asn | Ala | Ser | Val | Pro | Glu | Leu | Leu | Ala | Pro | Ile | Lys | Val | Glu |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Pro | Asp | Ser | Pro | Ser | Arg | Pro | Gly | Ala | Val | Gly | Gln | Gln | Glu | Gly | Ser |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| His | Gly | Leu | Pro | Gln | Ser | Thr | Leu | Pro | Ser | Pro | Ala | Glu | Gln | His | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Gln | Asp | Thr | Glu | Leu | Ser | Ala | Gly | Thr | Gly | Asn | Phe | Tyr | Leu | Val |

1579

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<211> 233

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<213> Homo sapiens

<400> 2110

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| 1 | | | | 5 | | | | | 10 | | | | | | 15 | |
| Asp | Asn | Pro | Arg | Thr | Phe | Ser | Arg | Arg | Pro | Pro | Ala | Gln | Ala | Ser | Arg | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Gln | Ala | Lys | Ala | Thr | Lys | Arg | Lys | Tyr | Gln | Ala | Ser | Ser | Glu | Ala | Pro | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Pro | Ala | Lys | Arg | Arg | Asn | Glu | Thr | Ser | Phe | Leu | Pro | Ala | Lys | Lys | Thr | |
| | 50 | | | | 55 | | | | | 60 | | | | | | |
| Ser | Val | Lys | Glu | Thr | Gln | Arg | Thr | Phe | Lys | Gly | Asn | Ala | Gln | Lys | Met | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Phe | Ser | Pro | Lys | Lys | His | Ser | Val | Ser | Thr | Ser | Asp | Arg | Asn | Gln | Glu | |
| | | | | 85 | | | | | 90 | | | | 95 | | | |
| Glu | Arg | Gln | Cys | Ile | Lys | Thr | Ser | Ser | Leu | Phe | Lys | Asn | Asn | Pro | Asp | |
| | | 100 | | | | | | 105 | | | | | 110 | | | |
| Ile | Pro | Glu | Leu | His | Arg | Pro | Val | Val | Lys | Gln | Val | Gln | Glu | Lys | Val | |
| | 115 | | | | | | 120 | | | | | 125 | | | | |
| Phe | Thr | Ser | Ala | Ala | Phe | His | Glu | Leu | Gly | Leu | His | Pro | His | Leu | Ile | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ser | Thr | Ile | Asn | Thr | Val | Leu | Lys | Met | Ser | Ser | Met | Thr | Ser | Val | Gln | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Lys | Gln | Ser | Ile | Pro | Val | Leu | Leu | Glu | Gly | Arg | Asp | Ala | Leu | Val | Arg | |
| | | | 165 | | | | | | 170 | | | | 175 | | | |
| Ser | Gln | Thr | Gly | Ser | Gly | Lys | Ile | Leu | Ala | Tyr | Cys | Ile | Pro | Val | Val | |
| | 180 | | | | | | | 185 | | | | | 190 | | | |
| Gln | Ser | Leu | Gln | Ala | Met | Glu | Ser | Lys | Ile | Gln | Arg | Ser | Asp | Gly | Pro | |
| | 195 | | | | | | 200 | | | | | 205 | | | | |
| Tyr | Ala | Leu | Val | Leu | Val | Pro | Thr | Arg | Glu | Val | Ser | Arg | Leu | Pro | Phe | |
| | 210 | | | | | 215 | | | | | | 220 | | | | |
| Gly | Thr | Ser | Phe | Lys | His | Met | Leu | Ser | | | | | | | | |
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 <211> 339
 <212> DNA
 <213> Homo sapiens

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 240
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 339

<210> 2112
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 2112
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 35 40 45
 Leu Phe Met Pro Ile Lys Leu Val Pro Lys Gln Phe Glu Gly Leu Val
 50 55 60
 Glu Arg Val Arg Ser Ala Leu Glu Arg Leu Arg Ala Gln Glu Arg Ala
 65 70 75 80
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 85 90 95
 Leu Arg Gln Phe Pro Gly Asn Glu Val Asp Glu Ser Trp Thr Asp Ala
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 Leu

<210> 2113
 <211> 2329
 <212> DNA
 <213> Homo sapiens

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780
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1740
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1800

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 1860
 aagatggcag agccatcgtc atttgtctgc agaagcactg gatcggtact caaaacgtgt
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 2040
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 2160
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<210> 2114

<211> 758

<212> PRT

<213> Homo sapiens

<400> 2114

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Tyr | Lys | Lys | Leu | Phe | Met | Phe | Glu | Arg | Val | His | His | Gly | Glu | Glu |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Leu | His | Met | Pro | Ile | Thr | Val | Ile | Trp | Gly | Val | Ser | Pro | Glu | Asp | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Asn | Pro | Leu | Asn | Pro | Lys | Ser | Lys | Gly | Lys | Leu | Thr | Leu | Asp | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Phe | Asn | Ile | Ala | Ser | Pro | Ala | Ser | Gln | Ala | Trp | Ile | Leu | His | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Gln | Lys | Leu | Arg | Asn | Gln | Thr | Phe | Phe | Tyr | Gln | Thr | Asp | Glu | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Phe | Thr | Ser | Cys | Phe | Ile | Glu | Thr | Phe | Lys | Gln | Trp | Met | Glu | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | Asp | Cys | Asp | Glu | Pro | Ala | Leu | Tyr | Pro | Cys | Cys | Ser | His | Trp | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Pro | Tyr | Lys | Gln | Glu | Ile | Phe | Glu | Leu | Cys | Ile | Lys | Arg | Ala | Ile |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Met | Glu | Leu | Glu | Arg | Ser | Thr | Gly | Tyr | His | Leu | Asp | Ser | Lys | Thr | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Pro | Arg | Phe | Asp | Ile | Asn | Asp | Thr | Ile | Arg | Ala | Val | Val | Leu | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Phe | Gln | Ser | Thr | Tyr | Leu | Phe | Thr | Leu | Ala | Tyr | Glu | Lys | Met | His | Gln |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Phe | Tyr | Lys | Glu | Val | Asp | Ser | Trp | Ile | Ser | Ser | Glu | Leu | Ser | Ser | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Glu | Gly | Leu | Ser | Asn | Gly | Trp | Phe | Val | Ser | Asn | Leu | Glu | Phe | Tyr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Leu | Gln | Asp | Ser | Leu | Ser | Asp | Gly | Thr | Leu | Ile | Ala | Met | Gly | Leu |
| | 210 | | | | | | 215 | | | | | 220 | | | |
| Ser | Val | Ala | Val | Ala | Phe | Ser | Val | Met | Leu | Leu | Thr | Thr | Trp | Asn | Ile |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ile | Ser | Leu | Tyr | Ala | Ile | Ile | Ser | Ile | Ala | Gly | Thr | Ile | Phe | Val |
| Thr | Val | Gly | Ser | Leu | Val | Leu | Leu | Gly | Trp | Glu | Leu | Asn | Val | Leu | Glu |
| Ser | Val | Thr | Ile | Ser | Val | Ala | Val | Gly | Leu | Ser | Val | Asp | Phe | Ala | Val |
| His | Tyr | Gly | Val | Ala | Tyr | Arg | Leu | Ala | Pro | Asp | Pro | Asp | Arg | Glu | Gly |
| Lys | Val | Ile | Phe | Ser | Leu | Ser | Arg | Val | Gly | Ser | Ala | Met | Ala | Met | Ala |
| Ala | Leu | Thr | Thr | Phe | Val | Ala | Gly | Ala | Met | Met | Ile | Pro | Ser | Thr | Val |
| Leu | Ala | Tyr | Thr | Gln | Leu | Gly | Thr | Phe | Met | Met | Leu | Ile | Met | Cys | Ile |
| Ser | Trp | Ala | Phe | Ala | Thr | Phe | Phe | Phe | Gln | Cys | Met | Cys | Arg | Cys | Leu |
| Gly | Pro | Gln | Gly | Thr | Cys | Gly | Gln | Ile | Pro | Leu | Pro | Lys | Lys | Leu | Gln |
| Cys | Ser | Ala | Phe | Ser | His | Ala | Leu | Ser | Thr | Ser | Pro | Ser | Asp | Lys | Gly |
| Gln | Ser | Lys | Thr | His | Thr | Ile | Asn | Ala | Tyr | His | Leu | Asp | Pro | Arg | Gly |
| Pro | Lys | Ser | Glu | Leu | Glu | His | Glu | Phe | Tyr | Glu | Leu | Glu | Pro | Leu | Ala |
| Ser | His | Ser | Cys | Thr | Ala | Pro | Glu | Lys | Thr | Thr | Tyr | Glu | Glu | Thr | His |
| Ile | Cys | Ser | Glu | Phe | Phe | Asn | Ser | Gln | Ala | Lys | Asn | Leu | Gly | Met | Pro |
| Val | His | Ala | Ala | Tyr | Asn | Ser | Glu | Leu | Ser | Lys | Ser | Thr | Glu | Ser | Asp |
| Thr | Gly | Ser | Ala | Leu | Leu | Gln | Pro | Pro | Leu | Glu | Gln | His | Thr | Val | Cys |
| His | Phe | Phe | Ser | Leu | Asn | Gln | Arg | Cys | Ser | Cys | Pro | Asp | Ala | Tyr | Lys |
| His | Leu | Asn | Tyr | Gly | Pro | His | Ser | Cys | Gln | Gln | Met | Gly | Asp | Cys | Leu |
| Cys | His | Gln | Cys | Ser | Pro | Thr | Ser | Ser | Phe | Val | Gln | Ile | Gln | Asn | |
| Gly | Val | Ala | Pro | Leu | Lys | Ala | Thr | His | Gln | Ala | Val | Glu | Gly | Phe | Val |
| His | Pro | Ile | Thr | His | Ile | His | His | Cys | Pro | Cys | Leu | Gln | Gly | Arg | Val |
| Lys | Pro | Ala | Gly | Met | Gln | Asn | Ser | Leu | Pro | Arg | Asn | Phe | Phe | Leu | His |
| Pro | Val | Gln | His | Ile | Gln | Ala | Gln | Glu | Lys | Ile | Gly | Lys | Thr | Asn | Val |
| His | Ser | Leu | Gln | Arg | Ser | Ile | Glu | Glu | His | Leu | Pro | Lys | Met | Ala | Glu |
| Pro | Ser | Ser | Phe | Val | Cys | Arg | Ser | Thr | Gly | Ser | Leu | Leu | Lys | Thr | Cys |
| Cys | Asp | Pro | Glu | Asn | Lys | Gln | Arg | Glu | Leu | Cys | Lys | Asn | Arg | Asp | Val |
| Ser | Asn | Leu | Glu | Ser | Ser | Gly | Gly | Thr | Glu | Asn | Lys | Ala | Gly | Gly | Lys |

660 665 670
 Val Glu Leu Ser Leu Ser Gln Thr Asp Ala Ser Val Asn Ser Glu His
 675 680 685
 Phe Asn Gln Asn Glu Pro Lys Val Leu Phe Asn His Leu Met Gly Glu
 690 695 700
 Ala Gly Cys Arg Ser Cys Pro Asn Asn Ser Gln Ser Cys Gly Arg Ile
 705 710 715 720
 Val Arg Val Lys Cys Asn Ser Val Asp Cys Gln Met Pro Asn Met Glu
 725 730 735
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 740 745 750
 Leu Leu Ile Lys Thr Leu
 755

<210> 2115
 <211> 461
 <212> DNA
 <213> Homo sapiens

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 120
 ggtcttgggt ccttggagcc caccaagtcc acaaccacct gctctgaata gaaagctgac
 180
 attgaaccga acagccgcgt cggaggggga tatctgtgga gagctgtgac tgggagccgg
 240
 tgtgtgcctt tctgtgggtca tttctcgagt cctctgccgg ctgctgccag gtgaaggcat
 300
 ctccatgccc agccggtggg cagctggggc ggggtggacct ccagcttctg cccgacgggg
 360
 ttcagatgac cgagatccta cgggattgcc aatgtgtggg gacggggggc tttcaggggg
 420
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 461

<210> 2116
 <211> 146
 <212> PRT
 <213> Homo sapiens

<400> 2116
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 20 25 30
 Gly Gly Pro Pro Ala Pro Ala Ala His Arg Leu Gly Met Glu Met Pro
 35 40 45
 Ser Pro Gly Ser Ser Arg Gln Arg Thr Arg Glu Met Thr Thr Glu Arg
 50 55 60
 His Thr Pro Ala Pro Ser His Ser Ser Pro Gln Ile Ser Pro Ser Asp
 65 70 75 80
 Ala Ala Val Arg Phe Asn Val Ser Phe Leu Phe Arg Ala Gly Gly Cys

85 90 95
 Gly Leu Gly Gly Leu Gln Gly Pro Lys Thr Ser Arg Trp Ala Gln Glu
 100 105 110
 Gly Asp Arg His Pro Pro Phe Gln Ile Leu Glu Tyr Pro Glu Ala Pro
 115 120 125
 Ser Gly Arg Glu Gly Gly Val Ser Gly Glu Pro Ala Pro Arg Pro Glu
 130 135 140
 Thr Arg
 145

<210> 2117
 <211> 360
 <212> DNA
 <213> Homo sapiens

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 120
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 240
 accgtcattg ccaacaagat tgccgacgcc cgctcggaag gcgaccttgc tgagaacggc
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 360

<210> 2118
 <211> 70
 <212> PRT
 <213> Homo sapiens

<400> 2118
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 20 25 30
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 Asn Gly Gly Tyr His Ala Ala Arg Glu Glu Gln Gly Gln Ala Glu Ala
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 Arg Ile Arg Gln Leu Glu
 65 70

<210> 2119
 <211> 465
 <212> DNA
 <213> Homo sapiens

<400> 2119
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 120
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 180
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 240
 acaacaaaat ggttttccac tccattgttg ttagaagcca gtgagttttt agcagaagac
 300
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 360
 gacgggtaccg attattccta ctatcatgca atattggagg ctgcatttca gtttctgtca
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<210> 2120

<211> 115

<212> PRT

<213> Homo sapiens

<400> 2120

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Cys | Lys | Gly | Asp | Ala | Ser | Gly | Val | Cys | Tyr | Lys | Met | Gly | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Val | Val | Leu | Thr | Val | Leu | Trp | Leu | Phe | Ser | Ser | Val | Lys | Ala | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Lys | Ala | Ile | Thr | Thr | Ser | Leu | Thr | Thr | Lys | Trp | Phe | Ser | Thr | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Leu | Glu | Ala | Ser | Glu | Phe | Leu | Ala | Glu | Asp | Ser | Gln | Glu | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Trp | Asn | Phe | Val | Glu | Ala | Ser | Gln | Asn | Ile | Gly | Ser | Ser | Asp | His |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Gly | Thr | Asp | Tyr | Ser | Tyr | Tyr | His | Ala | Ile | Leu | Glu | Ala | Ala | Phe |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | Phe | Leu | Ser | Pro | Leu | Gln | Gln | Asn | Leu | Phe | Lys | Phe | Cys | Leu | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | His | Ala | | | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 2121

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2121

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 120
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 180
 tactattcaa ctgactatga gtttctgggc tcttttcaca atggagtgtg cgagggagat
 240
 tcagttataa gaaatgagtc aacaaatttt aatgctaaaag ccctgattat attcctgggtg
 300

tttctgatta ttgtgacatc aatagccttg cttggt
336

<210> 2122

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2122

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Lys | Val | Asn | Gly | Met | Lys | Thr | Ser | Arg | Pro | Thr | Asp | Asn | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Asn | Val | Thr | Cys | Gly | Pro | Pro | Tyr | Glu | Thr | Asn | Gly | Pro | Lys | Thr |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Phe | Tyr | Ile | Leu | Val | Val | Arg | Ser | Gly | Gly | Ser | Phe | Val | Thr | Lys | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Lys | Thr | Asn | Cys | Gln | Phe | Tyr | Val | Asp | Asn | Leu | Tyr | Tyr | Ser | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Tyr | Glu | Phe | Leu | Val | Ser | Phe | His | Asn | Gly | Val | Tyr | Glu | Gly | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ser | Val | Ile | Arg | Asn | Glu | Ser | Thr | Asn | Phe | Asn | Ala | Lys | Ala | Leu | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Phe | Leu | Val | Phe | Leu | Ile | Ile | Val | Thr | Ser | Ile | Ala | Leu | Leu | Val |
| | | | 100 | | | | | 105 | | | | | | 110 | |

<210> 2123

<211> 426

<212> DNA

<213> Homo sapiens

<400> 2123

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180
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240
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360
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420
gagatc
426

<210> 2124

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2124

Asn Trp Ala Glu Phe Gly Asn Leu His Pro Phe Ala Pro Ala Glu Gln


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      20           25           30
Ala Ala Thr Gly Tyr Asp Ala Ile Ser Leu Gln Pro Asn Ala Gly Ser
      35           40           45
Gln Gly Glu Tyr Ala Gly Leu Leu Ala Ile Arg Ala Tyr His Gln Ser
      50           55           60
Arg Gly Asp Glu Arg Arg Asp Ile Cys Leu Ile Pro Ser Ser Ala His
65           70           75           80
Gly Thr Asn Pro Ala Thr Ala Asn Met Ala Gly Met Arg Val Val Val
      85           90           95
Thr Ala Cys Asp Ala Arg Gly Asn Val Asp Ile Glu Asp Leu Arg Ala
      100          105          110
Lys Ala Ile Glu His Arg Glu His Leu Ala Ala Leu Met Ile Thr Tyr
      115          120          125
Pro Ser Thr His Gly Val Phe Glu Glu Gly Ile Arg Glu Ile
      130          135          140

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<210> 2125

<211> 285

<212> DNA

<213> Homo sapiens

<400> 2125

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ngtatggcat ctgctgcttc aagttttgtg gtgacaccaa atgtcacttc taacacaacc
60
acagtcaagc ccaatatggt tatgttacct attcaaaaca caagagggtc aagattgggt
120
ctaaaggcgg ctgaagacgc ggcaccaccg gctgtcaccg ttgaagcggc caaggaagag
180
aagccgaagc caccaccaat tggacctaa agaggagcca aggtgagaat tcttaggaag
240
gagtcatact ggttcaaagg agtgggatca gttgtgactg ttgat
285

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<210> 2126

<211> 95

<212> PRT

<213> Homo sapiens

<400> 2126

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Xaa Met Ala Ser Ala Ala Ser Ser Phe Val Val Thr Pro Asn Val Thr
      1           5           10           15
Ser Asn Thr Thr Thr Val Lys Pro Asn Met Val Met Leu Pro Ile Gln
      20           25           30
Asn Thr Arg Gly Ser Arg Leu Val Leu Lys Ala Ala Glu Asp Ala Ala
      35           40           45
Pro Pro Ala Val Thr Val Glu Ala Ala Lys Glu Glu Lys Pro Lys Pro
      50           55           60
Pro Pro Ile Gly Pro Lys Arg Gly Ala Lys Val Arg Ile Leu Arg Lys
65           70           75           80
Glu Ser Tyr Trp Phe Lys Gly Val Gly Ser Val Val Thr Val Asp
      85           90           95

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<210> 2127
 <211> 454
 <212> DNA
 <213> Homo sapiens

<400> 2127
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 gcgacgcata ttccagggca cttgtcacca gtcatgccat tgggtaccat gaacccatgc
 120
 atgcagtact gcatgatgca acaggggctt gccagcttga tggcgtgtcc gtccctgatg
 180
 ctgcagcaac tggtggcctt accgcttcag acgatgccag tgatgatgcc acagatgatg
 240
 acgcctaaca tgatgtcacc attgatgatg ccgagcatga tgtcaccaat ggtcttgccg
 300
 agcatgatgt cgcaaagat gatgccacaa tgtcactgcg acgccgtctc gcagattatg
 360
 ctgcaacagc agttaccatt catgttcaac ccaatggcca tgacgattcc acccatgttc
 420
 ttacagcaac cctttgttgg tgctgcattc taga
 454

<210> 2128
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 2128
 Met Ala Ala Lys Met Leu Ala Leu Phe Ala Leu Leu Ala Leu Cys Ala
 1 5 10 15
 Ser Ala Thr Ser Ala Thr His Ile Pro Gly His Leu Ser Pro Val Met
 20 25 30
 Pro Leu Gly Thr Met Asn Pro Cys Met Gln Tyr Cys Met Met Gln Gln
 35 40 45
 Gly Leu Ala Ser Leu Met Ala Cys Pro Ser Leu Met Leu Gln Gln Leu
 50 55 60
 Leu Ala Leu Pro Leu Gln Thr Met Pro Val Met Met Pro Gln Met Met
 65 70 75 80
 Thr Pro Asn Met Met Ser Pro Leu Met Met Pro Ser Met Met Ser Pro
 85 90 95
 Met Val Leu Pro Ser Met Met Ser Gln Met Met Met Pro Gln Cys His
 100 105 110
 Cys Asp Ala Val Ser Gln Ile Met Leu Gln Gln Gln Leu Pro Phe Met
 115 120 125
 Phe Asn Pro Met Ala Met Thr Ile Pro Pro Met Phe Leu Gln Gln Pro
 130 135 140
 Phe Val Gly Ala Ala Phe
 145 150

<210> 2129
 <211> 354
 <212> DNA
 <213> Homo sapiens

<400> 2129

acgcgtgact tggatgaacaa acccatatcc atcacccct tcggtgttga tacggaaata
 60
 ctcacgccct ttgacaagcg gcgtgatgag aacggcggtg acgggggtgt gcgcacggg
 120
 actatcaagg ctctccactc caaatatggg atcggatgaac tcatccgtgc cttcagtcgg
 180
 gtccatgatg aacggcctaa tacgctcctt cgtatctggg gcggcgcccc agacgagaat
 240
 cccctcaagg tcttggtctg ccgtcttgct ccggacgggt cggtaggagtt tcgcggtgcc
 300
 attgatcatt ctgaggtcag aaatgccttg ggtagtttgg acatctttgc cgcc
 354

<210> 2130

<211> 118

<212> PRT

<213> Homo sapiens

<400> 2130

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Asp | Leu | Val | Asn | Lys | Pro | Ile | Ser | Ile | Thr | Pro | Phe | Gly | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Thr | Glu | Ile | Leu | Thr | Pro | Phe | Asp | Lys | Arg | Arg | Asp | Ala | Asn | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Gly | Asp | Gly | Val | Val | Arg | Ile | Gly | Thr | Ile | Lys | Ala | Leu | His | Ser | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Gly | Ile | Gly | Glu | Leu | Ile | Arg | Ala | Phe | Ser | Arg | Val | His | Asp | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Pro | Asn | Thr | Val | Leu | Arg | Ile | Trp | Gly | Gly | Gly | Pro | Asp | Glu | Asn |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Pro | Leu | Lys | Val | Leu | Ala | Arg | Arg | Leu | Val | Pro | Asp | Gly | Ser | Val | Glu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Phe | Arg | Gly | Ala | Ile | Asp | His | Ser | Glu | Val | Arg | Asn | Ala | Leu | Gly | Ser |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Leu | Asp | Ile | Phe | Ala | Ala | | | | | | | | | | |
| | | 115 | | | | | | | | | | | | | |

<210> 2131

<211> 324

<212> DNA

<213> Homo sapiens

<400> 2131

gcacgcggc cattgggttat gtgtgcctat tccattgggt atgtggaagg ttgggatcag
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 ccagacagtc attatgatgg tttgttacag ctgggcgagt ggggctttcg aatcaatgac
 120
 ctgatgaaga cggtagaggg cgcggcaggg tgcattgagt attatgaaat gctcaacgaa
 180
 caacgccccg acttgtctta tgacatagac ggtattgttt ataaagttga tcagattgac
 240
 ctgcaagaag agcttggttt tattgctcgt gcgccacgct gggcaattgc tcgaaaattt
 300

cctgctcaag aagaagttac gcgt
324

<210> 2132
<211> 108
<212> PRT
<213> Homo sapiens

<400> 2132
Ala Ser Arg Pro Leu Val Met Cys Ala Tyr Ser Ile Gly Tyr Val Glu
1 5 10 15
Gly Trp Asp Gln Pro Asp Ser His Tyr Asp Gly Leu Leu Gln Leu Gly
20 25 30
Glu Trp Gly Phe Arg Ile Asn Asp Leu Met Lys Thr Val Glu Gly Ala
35 40 45
Ala Gly Cys Ile Glu Tyr Tyr Glu Met Leu Asn Glu Gln Arg Pro Asp
50 55 60
Leu Ser Tyr Asp Ile Asp Gly Ile Val Tyr Lys Val Asp Gln Ile Asp
65 70 75 80
Leu Gln Glu Glu Leu Gly Phe Ile Ala Arg Ala Pro Arg Trp Ala Ile
85 90 95
Ala Arg Lys Phe Pro Ala Gln Glu Glu Val Thr Arg
100 105

<210> 2133
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2133
ggtacctgca atatggtatt gcatgacatg aataaatttt tccttactct gaactcacta
60
gtggctgtct ttagaggacc cggcgaactt ttctgtcttt ttcccacttg ctccatcaca
120
tacatcacat caccaacacc catcacatac atacacagtc atgaacggcc atcaggccac
180
accagattac atcgctgtgg atccaacct gcattttcct gccctcctt tactgcgagt
240
gtcacctcta cccggaagg tcttcaacct ccaagtttcc cagtaattta tt
292

<210> 2134
<211> 93
<212> PRT
<213> Homo sapiens

<400> 2134
Met Val Leu His Asp Met Asn Lys Phe Phe Leu Thr Leu Asn Ser Leu
1 5 10 15
Val Ala Val Phe Arg Gly Pro Gly Glu Leu Phe Leu Leu Phe Pro Thr
20 25 30
Cys Ser Ile Thr Tyr Ile Thr Ser Pro Thr Pro Ile Thr Tyr Ile His
35 40 45
Ser His Glu Arg Pro Ser Gly His Thr Arg Leu His Arg Cys Gly Ser

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 50 | | 55 | | 60 | | | | | | | | | | | |
| Asn | Pro | Ala | Phe | Ser | Cys | Pro | Ser | Phe | Thr | Ala | Ser | Val | Thr | Ser | Thr |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Arg | Lys | Gly | Leu | Gln | Pro | Pro | Ser | Phe | Pro | Val | Ile | Tyr | | | |
| | | | 85 | | | | | 90 | | | | | | | |

<210> 2135
 <211> 439
 <212> DNA
 <213> Homo sapiens

<400> 2135
 acgcgttcca ttggtgtgtc gaatttcaag accgagcatc tggacgccat cgagggggcc
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 actccgagcg tcgaccaaat cgagatgcat ccttcgttca accaggcgac cttccgcgca
 120
 gagctggccg agcgcggcat taaccggag gcctggagcc cgctgggcca gtcgaaggac
 180
 ctgacaatc ccgtcctcac cgatatattcc aaggcgactg gaaagacgcc tgcccagggtg
 240
 gtcattcgct ggcacctgca gatcggaac gtggtattcc ccaagtcggt gacaccatca
 300
 cgaattgccg agaactttga tgtgttcgat ttcgagctgt ctgacgagca gatcgccgca
 360
 attgatggcc tggatcacgg caacaggctc ggtggtgacc cttctaccgc cgacttctga
 420
 ttctgcaaca ataaccggt
 439

<210> 2136
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 2136
 Thr Arg Ser Ile Gly Val Ser Asn Phe Lys Thr Glu His Leu Asp Ala
 1 5 10 15
 Ile Glu Gly Ala Thr Pro Ser Val Asp Gln Ile Glu Met His Pro Ser
 20 25 30
 Phe Asn Gln Ala Thr Phe Arg Ala Glu Leu Ala Glu Arg Gly Ile Asn
 35 40 45
 Pro Glu Ala Trp Ser Pro Leu Gly Gln Ser Lys Asp Leu Asp Asn Pro
 50 55 60
 Val Leu Thr Asp Ile Ser Lys Ala Thr Gly Lys Thr Pro Ala Gln Val
 65 70 75 80
 Val Ile Arg Trp His Leu Gln Ile Gly Asn Val Val Phe Pro Lys Ser
 85 90 95
 Val Thr Pro Ser Arg Ile Ala Glu Asn Phe Asp Val Phe Asp Phe Glu
 100 105 110
 Leu Ser Asp Glu Gln Ile Ala Ala Ile Asp Gly Leu Asp His Gly Asn
 115 120 125
 Arg Leu Gly Gly Asp Pro Ser Thr Ala Asp Phe
 130 135

<210> 2137
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 2137
 nncctttgcc ttggtgata ccctcaccac ctgggaacat cccccagaca ccctcttaac
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 tccgggacag agatggctgg cggagcctgg ggccgctgg cctgttactt ggagttcctg
 120
 aagaaggagg agctgaagga gttccagctt ctgctcgcca ataaagcgca ctccaggagc
 180
 tcttccggtg agacacccgc tcagccagag aagacgagtg gcatggaggt ggcctcgtac
 240
 ctggtggctc agtatgggga gcagcggggc tgggacctag ccctccatac ctggggagcag
 300
 atggggctga ggtcactgtg cgcccaagcc
 330

<210> 2138
 <211> 86
 <212> PRT
 <213> Homo sapiens

<400> 2138
 Met Ala Gly Gly Ala Trp Gly Arg Leu Ala Cys Tyr Leu Glu Phe Leu
 1 5 10 15
 Lys Lys Glu Glu Leu Lys Glu Phe Gln Leu Leu Leu Ala Asn Lys Ala
 20 25 30
 His Ser Arg Ser Ser Ser Gly Glu Thr Pro Ala Gln Pro Glu Lys Thr
 35 40 45
 Ser Gly Met Glu Val Ala Ser Tyr Leu Val Ala Gln Tyr Gly Glu Gln
 50 55 60
 Arg Ala Trp Asp Leu Ala Leu His Thr Trp Glu Gln Met Gly Leu Arg
 65 70 75 80
 Ser Leu Cys Ala Gln Ala
 85

<210> 2139
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 2139
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 gtgaacaagc tggcgagtac catcgccag tacaacgata agatttccaa agtcaccacc
 120
 gccgccggtg ccccgaaacga cctgctggac cagcgcagcg aggcgggtgcg ccagttgtcc
 180
 gagctggctg ggaccaggt ggtccagcgc ggctcgagtt atgacgtcta tatcggcagc
 240
 ggtcagcgcc tgggtgatggg caacagcacc aacaccctgt ccgcagtgcc gagcaaggag
 300

gacccgagcc agtcggcctt gcagctggat cgcggcacca gcaccgtcga taccacctcc
 360
 acggtgaccg gtggcgagat cgggtggtctg ctgcgctatc gcagcgatgt gctcgaccgc
 420
 tcgatcaacg cgt
 433

<210> 2140
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 2140
 Glu Gln Leu Ser Ala Gln Asn Thr Gly Ile Asn Ser Asn Leu Ser Asp
 1 5 10 15
 Met Ala Gly Gln Val Asn Lys Leu Ala Ser Thr Ile Ala Gln Tyr Asn
 20 25 30
 Asp Gln Ile Ser Lys Val Thr Thr Ala Ala Gly Ala Pro Asn Asp Leu
 35 40 45
 Leu Asp Gln Arg Ser Glu Ala Val Arg Gln Leu Ser Glu Leu Val Gly
 50 55 60
 Thr Gln Val Val Gln Arg Gly Ser Ser Tyr Asp Val Tyr Ile Gly Ser
 65 70 75 80
 Gly Gln Arg Leu Val Met Gly Asn Ser Thr Asn Thr Leu Ser Ala Val
 85 90 95
 Pro Ser Lys Asp Asp Pro Ser Gln Ser Ala Leu Gln Leu Asp Arg Gly
 100 105 110
 Thr Ser Thr Val Asp Ile Thr Ser Thr Val Thr Gly Gly Glu Ile Gly
 115 120 125
 Gly Leu Leu Arg Tyr Arg Ser Asp Val Leu Asp Pro Ser Ile Asn Ala
 130 135 140

<210> 2141
 <211> 426
 <212> DNA
 <213> Homo sapiens

<400> 2141
 nnatatccat gcagcgatcc tcatcaattt gctgtgttat taggctttgg tgcgacggct
 60
 gtttatccctt atctttcttt ccgcttgatc aatgatattg tggataaagg cgaagtgtta
 120
 ggtgacccaa ttgcttgta tggtaaatat cgtaaaggta ttaacaaagg cttgatgaaa
 180
 atcctgtcta aaatgggtat ttcaacgatt gcctcttata gtggtgcgca attgtttgaa
 240
 gcggttggtc tggataactaa agtggtcgac ctttgtttca aaggcgttgc aagtcgtatc
 300
 aaaggtgctc gttttgaaga tttccagcgt gatcaagcaa cgattgccaa taatgcttgg
 360
 aagttacgta aacctattca acagggcggt tatcttaaata acgtacatga ctctgagtat
 420
 cagcgc
 426

<210> 2142
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 2142
 Xaa Tyr Pro Cys Ser Asp Pro His Gln Phe Ala Val Leu Leu Gly Phe
 1 5 10 15
 Gly Ala Thr Ala Val Tyr Pro Tyr Leu Ser Phe Arg Leu Ile Asn Asp
 20 25 30
 Met Val Asp Lys Gly Glu Val Leu Gly Asp Pro Ile Ala Cys His Val
 35 40 45
 Lys Tyr Arg Lys Gly Ile Asn Lys Gly Leu Met Lys Ile Leu Ser Lys
 50 55 60
 Met Gly Ile Ser Thr Ile Ala Ser Tyr Arg Gly Ala Gln Leu Phe Glu
 65 70 75 80
 Ala Val Gly Leu Asp Thr Lys Val Val Asp Leu Cys Phe Lys Gly Val
 85 90 95
 Ala Ser Arg Ile Lys Gly Ala Arg Phe Glu Asp Phe Gln Arg Asp Gln
 100 105 110
 Ala Thr Ile Ala Asn Asn Ala Trp Lys Leu Arg Lys Pro Ile Gln Gln
 115 120 125
 Gly Gly Tyr Leu Lys Tyr Val His Asp Ser Glu Tyr His Ala
 130 135 140

<210> 2143
 <211> 1008
 <212> DNA
 <213> Homo sapiens

<400> 2143
 gccggccttga caagcatggt caccgggtgac gctgtcgtga tcgtcgaggt gagccaattg
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 tgtcatattg tacgcagtat gtcttttcaa cgattcttgg cgggggtggc agccatcttg
 120
 cttctcctgc ctactgcgtg cgctgatgat ggcgagcgcg ccgttggtcga taacctcggg
 180
 acggtcctca gccccctcaa ctccctcatt cgcgagccgg cgaattcgtc agtcaacggg
 240
 acgtcaaga gcacatatga gtacctccgg ctcatcgacg gtcacgatct acccgacgac
 300
 gatggctacg ctcatgatca tctggtcgcg gctttgcgcc cgtatttggt gaatggtgga
 360
 gacagtcggc aggcccacgt cacccaactc atggcggcgt catccctgaa aacctcaac
 420
 gcgttgctccg acaaggagag atcagaggtc gacaaacgta cccgcctgcc gaagggctgc
 480
 atcacgagaa agacgggtgat gacggatctg cccatcgcgga cgatgaggcg ggagatcggc
 540
 ctgtccaacg acgggttggt cctcacaccg tggaaggtca agacgacttc ttccgaggag
 600
 gtcgggtggg cgatgcagcg gctggccagt gccgacctat tcagcaatgc taaggacgcc
 660

gagaaatggg ggtgggagtc gatctcggac gggatatttgc gccatctcga gacctacagt
 720
 ggccccagta cgactatcgc gatggccttg tcggcggcga ataccgtctc tacattgtct
 780
 cgttcccagt tgcaacgcat cggcgacagt ctcgcggatg cgccatatcc gaggaaggac
 840
 cttggtccgg cgctcattcg caatggaaag cgggtcaagg acaagtgcag tatcgaatcg
 900
 gcgtacctgt tgagggtattc cgggaattgg gcgtggtgac atgacggttt cttggcaagg
 960
 tgtgaccaag acattcccct cgggcgattc cgcgcgtggg ggggtgcac
 1008

<210> 2144

<211> 307

<212> PRT

<213> Homo sapiens

<400> 2144

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Phe | Thr | Gly | Asp | Ala | Val | Val | Ile | Val | Glu | Val | Ser | Gln | Leu | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Ile | Val | Arg | Ser | Met | Ser | Phe | Gln | Arg | Phe | Leu | Ala | Gly | Val | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ile | Leu | Leu | Leu | Leu | Pro | Thr | Ala | Cys | Ala | Asp | Asp | Ala | Gln | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Val | Val | Asp | Asn | Leu | Gly | Thr | Val | Leu | Ser | Pro | Ser | Asn | Ser | Leu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ile | Arg | Glu | Pro | Ala | Asn | Ser | Ser | Val | Asn | Gly | Thr | Leu | Lys | Ser | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Tyr | Glu | Tyr | Leu | Arg | Leu | Ile | Asp | Gly | His | Asp | Leu | Pro | Asp | Asp | Asp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | Tyr | Ala | His | Asp | His | Leu | Val | Ala | Ala | Leu | Arg | Pro | Tyr | Leu | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Gly | Gly | Asp | Ser | Arg | Gln | Ala | His | Val | Thr | Gln | Leu | Met | Ala | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ser | Leu | Lys | Thr | Leu | Asn | Ala | Leu | Ser | Asp | Lys | Glu | Arg | Ser | Glu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Val | Asp | Lys | Arg | Thr | Arg | Leu | Pro | Lys | Gly | Cys | Ile | Thr | Arg | Lys | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Val | Met | Thr | Asp | Leu | Pro | Ile | Ala | Thr | Met | Arg | Arg | Glu | Ile | Gly | Leu |
| | | | | 165 | | | | 170 | | | | | 175 | | |
| Ser | Asn | Asp | Gly | Leu | Cys | Leu | Thr | Pro | Trp | Lys | Val | Lys | Thr | Thr | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Glu | Glu | Ala | Arg | Trp | Ala | Met | Gln | Ala | Leu | Ala | Ser | Ala | Asp | Leu |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Phe | Ser | Asn | Ala | Lys | Asp | Ala | Glu | Lys | Trp | Gly | Trp | Glu | Ser | Ile | Ser |
| | | 210 | | | | 215 | | | | | | 220 | | | |
| Asp | Gly | Tyr | Leu | Arg | His | Leu | Glu | Thr | Tyr | Ser | Gly | Pro | Ser | Thr | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Ile | Ala | Met | Ala | Leu | Ser | Ala | Ala | Asn | Thr | Val | Ser | Thr | Leu | Ser | Arg |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Ser | Gln | Leu | Gln | Arg | Ile | Gly | Asp | Ser | Leu | Ala | Asp | Ala | Pro | Tyr | Pro |
| | | 260 | | | | | | 265 | | | | 270 | | | |
| Arg | Lys | Asp | Leu | Gly | Pro | Ala | Leu | Ile | Arg | Asn | Gly | Lys | Pro | Val | Lys |

275 280 285
 Asp Lys Cys Ser Ile Glu Ser Ala Tyr Leu Leu Arg Tyr Ser Gly Asn
 290 295 300
 Trp Ala Trp
 305

<210> 2145
 <211> 389
 <212> DNA
 <213> Homo sapiens

<400> 2145
 tctagaatcg tgtataacat tctacacaat aagctaagcc tactcttgta gagtgcgac
 60
 atgacaaccc ttgaacaatc attatctcaa attcccgcac ttctgattat tcatgaacat
 120
 ttatttagct cggcccagcc ttctgctgaa caactaaaat tgattaaaga gtttggttgt
 180
 agcacagtca ttaaccttgc tttaactaat gcttcaaadc atcttgagaa tgaagaccgt
 240
 atttgttttag accttggttt aaattatatt catattccaa ttgattggga gatgccttct
 300
 gctgagcagt gcttattagt ttttagatttg attgatcatt tagtgcaaaa tgaaattgtt
 360
 tggatacatt gcgcacaaaa taaacgcgt
 389

<210> 2146
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 2146
 Met Thr Thr Leu Glu Gln Ser Leu Ser Gln Ile Pro Ala Phe Ser Ile
 1 5 10 15
 Ile His Glu His Leu Phe Ser Ser Ala Gln Pro Ser Ala Glu Gln Leu
 20 25 30
 Lys Leu Ile Lys Glu Phe Gly Cys Ser Thr Val Ile Asn Leu Ala Leu
 35 40 45
 Thr Asn Ala Ser Asn His Leu Glu Asn Glu Asp Arg Ile Cys Leu Asp
 50 55 60
 Leu Gly Leu Asn Tyr Ile His Ile Pro Ile Asp Trp Glu Met Pro Ser
 65 70 75 80
 Ala Glu Gln Cys Leu Leu Val Leu Asp Leu Ile Asp His Leu Val Gln
 85 90 95
 Asn Glu Ile Val Trp Ile His Cys Ala Lys Asn Lys Arg
 100 105

<210> 2147
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 2147

ctccctgcgg gctgcgtctc cgaggacatg tgcagtcctg acccctgttt caatggtggg
 60
 acttgccctg tcacctggaa tgacttccac tgtacctgcc ctgccaattt cacggggcct
 120
 acatgtgccc agcagctgtg gtgtcccggc cagccctgtc tcccacctgc cacgtgtgtg
 180
 gcggaggcca cgttccgcga ggggtccccc gccgcgttca gcgggcacaa cgcgt
 235

<210> 2148

<211> 78

<212> PRT

<213> Homo sapiens

<400> 2148

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Ala | Gly | Cys | Val | Ser | Glu | Asp | Met | Cys | Ser | Pro | Asp | Pro | Cys |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Phe | Asn | Gly | Gly | Thr | Cys | Leu | Val | Thr | Trp | Asn | Asp | Phe | His | Cys | Thr |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Cys | Pro | Ala | Asn | Phe | Thr | Gly | Pro | Thr | Cys | Ala | Gln | Gln | Leu | Trp | Cys |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Pro | Gly | Gln | Pro | Cys | Leu | Pro | Pro | Ala | Thr | Cys | Val | Ala | Glu | Ala | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Arg | Glu | Gly | Pro | Pro | Ala | Ala | Phe | Ser | Gly | His | Asn | Ala | | |
| 65 | | | | | 70 | | | | | 75 | | | | | |

<210> 2149

<211> 1474

<212> DNA

<213> Homo sapiens

<400> 2149

ntactgccac cattggaact tttgatgttg atggggaaga gttgcaacac ctccagggtt
 60
 gtccctgctga tgggtggctgc gaatgatttg ccttgacaat agctgaaaaa ccaccatctg
 120
 caacacgtgg gagtaagact tctctgctc tttgccagtg gtctgaggtg atgaaccacc
 180
 ctggcttggt gtgctgtgtc cagcaaacta caggggtgcc gctggtagtt atggtgaaac
 240
 cagacacttt tcttatccac gagattaaga ctcttctgct taaagcgaag atccaagaca
 300
 tggttgctat taggcacacg gcctgcaatg agcagcagcg gacaacaatg attctgctgt
 360
 gtgaggatgg cagcctgcgc atttacctgg ccaacgtgga gaacacctcc tactggctgc
 420
 agccatccct gcagcccagc agtgtcatca gcatcatgaa gcctgttcga aagcgcaaaa
 480
 cagctacaat cacaaccng cacgtctagc caggtgactt tcccattga cttttttgaa
 540
 cacaaccagc agctgacaga tgtggagttt ggtggtaacg acctctaca ggtctataat
 600
 gcacaacaga taaaacaccg gctgaattcc actggcatgt atgtggccaa caccaagccc
 660

ggaggcttca ccattgagat tagtaacaac aatagcacta tggatgatgac aggcattgcgg
 720
 atccagattg ggactcaagc aatagaacgg gccccgtcat atatcgagat cttcggcaga
 780
 actatgcagc tcaacctgag tcgctcacgc tggtttgact tccccttcac cagagaagaa
 840
 gccctgcagg ctgataagaa gctgaacctc ttcattgggg cctcgggtgga tccagcaggt
 900
 gtcaccatga tagatgctgt aaaaatttat ggcaagacta aggagcagtt tggctggcct
 960
 gatgagcccc cagaagaatt cccttctgcc tctgtcagca acatctgccc ttcaaactctg
 1020
 aaccagagca acggcactgg agatagcgac tcagctgccc ccactacgac cagtgggaact
 1080
 gtcttgagga ggctgggtgt gagttcttta gaagccctgg aaagctgctt tgccgttggc
 1140
 ccaatcatcg agaaggagag aaacaagaat gctgctcagg agctggccac tttgctgttg
 1200
 tccctgccag cacctgccag tgtccagcag cagtccaaga gccttctggc cagcctgcac
 1260
 accagccgct cggcctacca cagccacaag gtaactgttc tctcagggaa aggaaattgc
 1320
 agtgctgaca gggaaatcaaa taagttagct cttcattgta aagcaacagc acagcaaagt
 1380
 aaggtagagg gaggatagca ttcagattag acctacattt tacagagttt ctctgagaa
 1440
 attctcaagt gccactcaaa actgagggtg agcc
 1474

<210> 2150

<211> 312

<212> PRT

<213> Homo sapiens

<400> 2150

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Phe | Glu | Ser | Ala | Lys | Gln | Leu | Gln | Ser | Gln | Pro | Xaa | Thr | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Gln | Val | Thr | Phe | Pro | Ile | Asp | Phe | Phe | Glu | His | Asn | Gln | Gln | Leu |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Thr | Asp | Val | Glu | Phe | Gly | Gly | Asn | Asp | Leu | Leu | Gln | Val | Tyr | Asn | Ala |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Gln | Gln | Ile | Lys | His | Arg | Leu | Asn | Ser | Thr | Gly | Met | Tyr | Val | Ala | Asn |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Thr | Lys | Pro | Gly | Gly | Phe | Thr | Ile | Glu | Ile | Ser | Asn | Asn | Asn | Ser | Thr |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Met | Val | Met | Thr | Gly | Met | Arg | Ile | Gln | Ile | Gly | Thr | Gln | Ala | Ile | Glu |
| | | | 85 | | | | 90 | | | | | | 95 | | |
| Arg | Ala | Pro | Ser | Tyr | Ile | Glu | Ile | Phe | Gly | Arg | Thr | Met | Gln | Leu | Asn |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Leu | Ser | Arg | Ser | Arg | Trp | Phe | Asp | Phe | Pro | Phe | Thr | Arg | Glu | Glu | Ala |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Leu | Gln | Ala | Asp | Lys | Lys | Leu | Asn | Leu | Phe | Ile | Gly | Ala | Ser | Val | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Ala | Gly | Val | Thr | Met | Ile | Asp | Ala | Val | Lys | Ile | Tyr | Gly | Lys | Thr |

<400> 2152
Ala Gly Val Tyr Leu Trp Gly Pro Val Gly Arg Gly Lys Thr Trp Leu

```

1           5           10           15
Met Asp Gln Phe His Gln Ser Leu Xaa Gly Cys Arg Arg Xaa Arg Gln
           20           25           30
His Phe His His Phe Met Gly Trp Val His Gln Arg Ser Phe Gln Leu
           35           40           45
Thr Gly Ile Ala Asp Pro Leu Arg Ala Leu Ala Arg Glu Leu Ala Ala
           50           55           60
Glu Val Arg Val Leu Cys Phe Asp Glu Leu Phe Val Asn Asp Ile Gly
65           70           75           80
Asp Ala Ile Ile Leu Gly Arg Leu Phe Gln Val Met Phe Asp Ala Gly
           85           90           95
Val Val Val Val Cys Thr Ser Asn Leu Pro Pro Asp Gln Leu Tyr Ala
           100          105          110
Asp Gly Phe Asn Arg Asp Arg Phe Leu Pro Ala Ile Thr Ala Ile Lys
           115          120          125
Gln His Met Gln Val Val Ala Val Asn Gly Ala Glu Asp His Arg Leu
           130          135          140
His Pro Gly Ala Ile Glu Gln Arg Tyr Trp Val Ala Leu Pro Glu Gln
145          150          155          160
Gly Ser Ala Leu Ser Gln Val Phe Asp Ala
           165          170

```

<210> 2153

<211> 528

<212> DNA

<213> Homo sapiens

<400> 2153

```

nnaccggtgc caaagagctg gggatcaacc tgccgaacac cgccggtacg cagcagggtg
60
tcagtacgtg cacggcgatt ggcggcgga attgggacca ctccgcgctg atcaagggcc
120
tggagcatat ggccaacttt tcgattcgcg atcaataagc cacaccgctc ccacctttga
180
tggcattcca agtctgaaat tgatccatct ctaataacaa aaatccccgg gagcccgtt
240
atgtcggctg atccgcaaca cctgcttcgc gagctgtttg ccacagccat cgatgccgc
300
caccctcggc atgtccttga accttatctg cccgctgacc gcacaggccg tgtgattgtg
360
attggggccg gcaaaaccgc acccgccatg gccctcgtcg tcgagaacgg ctggcaaggc
420
gaagtcaccg gcttggtggt cacccgctac ggccacggcg cgccgtgcaa aaaaatcgaa
480
gtggtcgagg ccgctcaccg ggtgccggat gccgcccggc tggcggtg
528

```

<210> 2154

<211> 96

<212> PRT

<213> Homo sapiens

<400> 2154

```

Met Ser Val Asp Pro Gln His Leu Leu Arg Glu Leu Phe Ala Thr Ala

```

```

      1           5           10           15
Ile Asp Ala Ala His Pro Arg His Val Leu Glu Pro Tyr Leu Pro Ala
      20           25           30
Asp Arg Thr Gly Arg Val Ile Val Ile Gly Pro Gly Lys Thr Ala Pro
      35           40           45
Ala Met Ala Leu Val Val Glu Asn Gly Trp Gln Gly Glu Val Thr Gly
      50           55           60
Leu Val Val Thr Arg Tyr Gly His Gly Ala Pro Cys Lys Lys Ile Glu
      65           70           75           80
Val Val Glu Ala Ala His Pro Val Pro Asp Ala Ala Gly Leu Ala Val
      85           90           95

```

<210> 2155

<211> 297

<212> DNA

<213> Homo sapiens

<400> 2155

```

gtgcaccgcc acggcacacc cgccatgccg cgccgctatt tcgaggccct gctgcaggag
60
ttcggccccg actgcgaggt gctcacgctc accgattcag agggcaaccc cctcagttcg
120
gtgctcagtt tctacttccg tgatgaagtg ctgccctact atgcggggcga cgccgtcgcg
180
gcgcgcgaac tggcggccaa tgacttcaaa tactggggagc tgatgcgacg cgccgtgtcg
240
cgcggcctca aggtgtttga ctacggccgc agcaagcagg gcacgggctc ctacgcn
297

```

<210> 2156

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2156

```

Met Pro Arg Arg Tyr Phe Glu Ala Leu Leu Gln Glu Phe Gly Pro Asp
  1           5           10           15
Cys Glu Val Leu Thr Val Thr Asp Ser Glu Gly Asn Pro Leu Ser Ser
      20           25           30
Val Leu Ser Phe Tyr Phe Arg Asp Glu Val Leu Pro Tyr Tyr Ala Gly
      35           40           45
Asp Ala Val Ala Ala Arg Glu Leu Ala Ala Asn Asp Phe Lys Tyr Trp
      50           55           60
Glu Leu Met Arg Arg Ala Cys Ala Arg Gly Leu Lys Val Phe Asp Tyr
      65           70           75           80
Gly Arg Ser Lys Gln Gly Thr Gly Ser Tyr Ala
      85           90

```

<210> 2157

<211> 711

<212> DNA

<213> Homo sapiens

<400> 2157

naccgagata acgaggtcgt catcatctcc actgggtccc aaggtgagcc actttcggcc
 60
 cttagcaagga tcgccaaccg agagcaccga gacatcgagg tgggggaggg agataccgtt
 120
 ttgctggcat cctctctcat cccgggtaat gagaatgccg tctatcgagt gattaatggc
 180
 ctgacgaagc ttggcgccgc cgtggtacat aagggaacg ctttgggtcca cgtttccggc
 240
 catgccgcag ccggagagct gctgtacgcg tataacatcg tgcggccacg cgctgtgatg
 300
 ccgattcatg gtgaggtgcg tcattctgtc gctaatagccg atctggccaa agcaaccggt
 360
 gtcgatgaga acaacgtggt gcttgtcgag gacggcgggg ttattgacct tgttgacgga
 420
 gtaccgcgag ttgttggcaa ggtcgatgcc tcgtacatcc ttgttgacgg atctgggggtg
 480
 ggggagctta ccgaggacac gctcactgat cgccgtatcc tcggtgagga gggattcttg
 540
 tcagtcgtca ccgtgggtga cccccgtcg gcgtcagtgg tgtctcgccc ggcgatccag
 600
 gcgcgtggtt ttgccgaggg cgactcggtc ttcgcggaga tcaccgacca gatcgtcacc
 660
 gagctagaga aggcgatggc cgttggtatg gacgataccc accggttgca a
 711

<210> 2158

<211> 237

<212> PRT

<213> Homo sapiens

<400> 2158

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Asp | Asn | Glu | Val | Val | Ile | Ile | Ser | Thr | Gly | Ser | Gln | Gly | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Leu | Ser | Ala | Leu | Ala | Arg | Ile | Ala | Asn | Arg | Glu | His | Arg | Asp | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Val | Gly | Glu | Gly | Asp | Thr | Val | Leu | Leu | Ala | Ser | Ser | Leu | Ile | Pro |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Gly | Asn | Glu | Asn | Ala | Val | Tyr | Arg | Val | Ile | Asn | Gly | Leu | Thr | Lys | Leu |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Gly | Ala | Ala | Val | Val | His | Lys | Gly | Asn | Ala | Leu | Val | His | Val | Ser | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| His | Ala | Ala | Ala | Gly | Glu | Leu | Leu | Tyr | Ala | Tyr | Asn | Ile | Val | Arg | Pro |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Arg | Ala | Val | Met | Pro | Ile | His | Gly | Glu | Val | Arg | His | Leu | Val | Ala | Asn |
| | | 100 | | | | | | 105 | | | | 110 | | | |
| Ala | Asp | Leu | Ala | Lys | Ala | Thr | Gly | Val | Asp | Glu | Asn | Asn | Val | Val | Leu |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Val | Glu | Asp | Gly | Gly | Val | Ile | Asp | Leu | Val | Asp | Gly | Val | Pro | Arg | Val |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Val | Gly | Lys | Val | Asp | Ala | Ser | Tyr | Ile | Leu | Val | Asp | Gly | Ser | Gly | Val |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Gly | Glu | Leu | Thr | Glu | Asp | Thr | Leu | Thr | Asp | Arg | Arg | Ile | Leu | Gly | Glu |
| | | | 165 | | | | 170 | | | | | | 175 | | |
| Glu | Gly | Phe | Leu | Ser | Val | Val | Thr | Val | Val | Asp | Thr | Arg | Ser | Ala | Ser |

<400> 2161

tcttagggga agggaaggct tatctgaaga gtagacctct ggttttgaat gagggagaca
 60
 gtggggatat gaggggagga aacctcaaaa agaatatgta tccatcacta tgaaaggtta
 120
 ggctatacag gggaagcctc caaagggaaa tctggaaaaa tgttctgaga gggacattaa
 180
 ggatgtactc agaaattaag aaaacatatt aggacttgcc aaaagtgaga gaagcaactg
 240
 aggagactta tatgcaaaaa tcgcaaagaa ggagagaaca aaagatggag gttggatgct
 300
 aaatagggaa agagaacgcg tgaatgaggt agggggcaga acatgcagtg cagaaaaaca
 360
 acagatatgg aagggcatta aagagggcta aatgggaata ttaggaaatg agagttggga
 420
 atttgtcaga gttgtgtatt aacaaggaga gggtaaggta agaagggtggc aaagtaagag
 480
 ccagggcata aggttttgct gtccaggaag ctttgttgga aaaatgttag aagtaatggg
 540
 tttggtcagt atgggtgagag gtgagagagg ctaaattggga tgggcataaa gggcaggcca
 600
 gtggcaagaa tcctatgaaa gtgtaggcag atctgagagc acagacaaat acagtggaga
 660
 atgtggcaca gggcagaggg cagtgggctg agcagcgagt gcccattggg aggggagtat
 720
 ccagaagaac ccattgagtc cctaagaatg acacacaggt gacagctgaa agaaggaggg
 780
 acacagaaga tatagcagca tgattctctg gggcaaaatg aggaagaaag gaatggaaga
 840
 agaaagtgaa gggttcctgc tgatgtgagg ggatgactgg aggaaaggca ggtattgact
 900
 ggggggtaaa ggaaccattc ttggatcaag gttatgatgg aataagaagg aagagagagc
 960
 tggctagctg agtaaaggac catcgtataa aacagacaaa agttaagact agatggagtg
 1020
 gcaactaggc agatcagatg tattttttaa aggggaaact gctaagatct
 1070

<210> 2162

<211> 145

<212> PRT

<213> Homo sapiens

<400> 2162

Met Val Leu Tyr Ser Ala Ser Gln Leu Ser Leu Pro Ser Tyr Ser Ile
 1 5 10 15
 Ile Thr Leu Ile Gln Glu Trp Phe Leu Tyr Pro Pro Val Asn Thr Cys
 20 25 30
 Leu Ser Ser Ser His Pro Leu Thr Ser Ala Gly Thr Leu His Phe Leu
 35 40 45
 Leu Pro Phe Leu Ser Ser Ser Phe Cys Pro Arg Glu Ser Cys Cys Tyr
 50 55 60
 Ile Phe Cys Val Pro Pro Ser Phe Ser Cys His Leu Cys Val Ile Leu
 65 70 75 80
 Arg Asp Ser Met Gly Ser Ser Gly Tyr Ser Pro Pro His Gly His Ser

85 90 95
 Leu Leu Ser Pro Leu Pro Ser Ala Leu Cys His Ile Leu His Cys Ile
 100 105 110
 Cys Leu Cys Ser Gln Ile Cys Leu His Phe His Arg Ile Leu Ala Thr
 115 120 125
 Gly Leu Pro Phe Met Pro Ile Pro Phe Ser Leu Ser His Leu Ser Pro
 130 135 140
 Tyr
 145

<210> 2163

<211> 657

<212> DNA

<213> Homo sapiens

<400> 2163

tattttaaatac tttataaaaa aggtaggagg atcaggactt cgacccccctt aaaacgcggc
 60
 ggcctccctc caatccacct ccacttecta caccaccccc gctctcccc ccccccttt
 120
 tggttccggg ttggaagggt gggtgaaatg ggaaccgaat accaatttca cccgggaacc
 180
 agtaatgccc atgataaccg ccaagttggg accgaagttg ggatccataa gtacggggcg
 240
 ccagtggggg ggaattgggt taagccccct cccagccttt ctccgaccgc gtgctccgtc
 300
 agacatgccca agaggctctc tctccaggag agccacctgt gaaaccacc cggcatgctc
 360
 ctcccaccac tgtgcacaga cgagtgcctg ggctccagag agggagggag ctgaaggcct
 420
 cagacaggag tccgtcccggt ccagtcccat catcccaaga aacatccggc ccgactccct
 480
 gcagctccat ggctcaacaa ggtgcggatg cctgctggac ctggctgctt tccatccaac
 540
 tttgatccct tccccaaagag gaagagtgt acctagggac aagtgtggtg cgcacaggca
 600
 tgcagcctgg tctcttgctc aggcggcttg cgcagattcc tagaggaatc tgcagcg
 657

<210> 2164

<211> 152

<212> PRT

<213> Homo sapiens

<400> 2164

Met Pro Met Ile Thr Ala Lys Leu Gly Pro Lys Leu Gly Ser Ile Ser
 1 5 10 15
 Thr Gly Gly Gln Trp Gly Gly Ile Gly Leu Ser Pro Leu Pro Ala Phe
 20 25 30
 Leu Arg Pro Arg Ala Pro Ser Asp Met Pro Arg Gly Ser Leu Ser Arg
 35 40 45
 Arg Ala Thr Cys Glu Thr His Pro Ala Cys Ser Ser His His Cys Ala
 50 55 60
 Gln Thr Ser Ala Trp Ala Pro Glu Arg Glu Gly Ala Glu Gly Leu Arg

```

65          70          75          80
Gln Glu Ser Val Pro Ser Ser Pro Ile Ile Pro Arg Asn Ile Arg Pro
          85          90          95
Asp Ser Leu Gln Leu His Gly Ser Thr Arg Cys Gly Cys Leu Leu Asp
          100          105          110
Leu Ala Ala Phe His Pro Thr Leu Ile Pro Ser Pro Arg Gly Arg Val
          115          120          125
Leu Pro Arg Asp Lys Cys Gly Ala His Arg His Ala Ala Trp Ser Leu
          130          135          140
Ala Gln Ala Ala Cys Ala Asp Ser
145          150

```

<210> 2165

<211> 962

<212> DNA

<213> Homo sapiens

<400> 2165

```

nctttctcat cgacagcgac gcacaaccgg cgacatcacc ggtgacggtt caaggtggca
60
gcccagagggc ccgcccgtgaa cttatttgtgt cgtcttatgg aagaaaagtc actcgggaagt
120
accgtaaadc accccagcgc ctcacccccc gaatctgttc gccatctgct gtcgcccctg
180
cgcttaaggc atcacccccc tagactgacc gaagtctcgc cgagggaggc tagggagggt
240
taggtggcca ggaatgacat cgggacgacg tctacgcgct gaataggcag cggacgtacg
300
tcgagtaccg gccgtacggg ggtgtcttct gaccgcacac gcagagctat cgctaaaaga
360
ttgatggccc gcacctcagc tatgacgacg gccactctag aggaaatggg tcgtcgacac
420
tcctggttcc gtgatctgtc agccgaagaa agatcgtgga tctcgatcgt ggctcgctca
480
ggtattgacg gtttcgtcca gtggtttgct gacgatgacg ccgagcccta cccccacc
540
gacgtcttcg acgtggcgcc ccggtccatg acccgcaaga tctccttgca ccagacagtc
600
gagctcgtcc gcaccacgat tgacgtcggt gaggcacaaa ttgagaccga aatgccacgc
660
ggtgatcgcc aagtgtgctg cactgccatc gttcactact cccgcgaggt ggccttcgcc
720
gccgccgagg ttacgcgcg agccgccgaa cgtcgcggta cctgggatga acgtctggaa
780
tccctcgtcg ttgatgccgt cgtgcgagcc gacgccgatg aacagctcat ctcgcgagct
840
tctactctcg gctggcgccc gggcatcaac ctctgcgtcg ttgtcgggcg ggccccgacg
900
accgagcatg aactccacgt gctgcgacgt gatggagaac gcatgcagat gacggtgcta
960
gc
962

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<210> 2166

<211> 239
 <212> PRT
 <213> Homo sapiens

<400> 2166
 Val Ala Arg Asn Asp Ile Gly Thr Thr Ser Thr Arg Arg Ile Gly Ser
 1 5 10 15
 Gly Arg Thr Ser Ser Thr Gly Arg Thr Val Val Ser Ser Asp Arg Thr
 20 25 30
 Arg Arg Ala Ile Ala Lys Arg Leu Met Ala Arg Thr Ser Ala Met Thr
 35 40 45
 Thr Ala Thr Leu Glu Glu Met Gly Arg Arg His Ser Trp Phe Arg Asp
 50 55 60
 Leu Ser Ala Glu Glu Arg Ser Trp Ile Ser Ile Val Ala Arg Ser Gly
 65 70 75 80
 Ile Asp Gly Phe Val Gln Trp Phe Ala Asp Asp Asp Ala Glu Pro Tyr
 85 90 95
 Ser Pro Thr Asp Val Phe Asp Val Ala Pro Arg Ser Met Thr Arg Lys
 100 105 110
 Ile Ser Leu His Gln Thr Val Glu Leu Val Arg Thr Thr Ile Asp Val
 115 120 125
 Val Glu Ala Gln Ile Glu Thr Glu Met Pro Arg Gly Asp Arg Gln Val
 130 135 140
 Leu Arg Thr Ala Ile Val His Tyr Ser Arg Glu Val Ala Phe Ala Ala
 145 150 155 160
 Ala Glu Val Tyr Ala Arg Ala Ala Glu Arg Arg Gly Thr Trp Asp Glu
 165 170 175
 Arg Leu Glu Ser Leu Val Val Asp Ala Val Val Arg Ala Asp Ala Asp
 180 185 190
 Glu Gln Leu Ile Ser Arg Ala Ser Thr Leu Gly Trp Arg Pro Gly Ile
 195 200 205
 Asn Leu Cys Val Val Val Gly Arg Ala Pro Thr Thr Glu His Glu Leu
 210 215 220
 His Val Leu Arg Arg Asp Gly Glu Arg Met Gln Met Thr Val Leu
 225 230 235

<210> 2167
 <211> 325
 <212> DNA
 <213> Homo sapiens

<400> 2167
 accggtgcag tttgtgaggg gttggtgacg cccgatcggg aggttcacgc cgtcacggcg
 60
 catccacatt atcccgaactg gaagatctcg ccagggttacg gacagtggtc gcgtagcgaa
 120
 cagatcgaca gtgtgactgt gacgcgagtc agacacttcg tcccgcggcg tcccacggcg
 180
 attcttcgag cgggtgtctga ggtgacgttc gggttgcgtc tctgcgccgt ccgttgggcga
 240
 agcaccgcgg cgattgtggc tgtgtgcgcc gccttgctct cgacgcggtc gcgcgggctcg
 300
 tgcgctgac tcccacagca taccc
 325

<210> 2168
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 2168
 Thr Gly Ala Val Cys Glu Gly Leu Val Thr Pro Asp Arg Glu Val His
 1 5 10 15
 Ala Val Thr Ala His Pro His Tyr Pro Asp Trp Lys Ile Ser Pro Gly
 20 25 30
 Tyr Gly Gln Trp Ser Arg Ser Glu Gln Ile Asp Ser Val Thr Val Thr
 35 40 45
 Arg Val Arg His Phe Val Pro Arg Arg Pro Thr Ala Ile Leu Arg Ala
 50 55 60
 Val Ser Glu Val Thr Phe Gly Leu Arg Leu Cys Ala Val Arg Trp Arg
 65 70 75 80
 Ser Thr Ala Ala Ile Val Ala Val Ser Pro Ala Leu Leu Ser Thr Arg
 85 90 95
 Ser Arg Gly Ser Cys Ala Asp Leu Pro Gln His Thr
 100 105

<210> 2169
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 2169
 gaggacgcct acgtgctcat caccagggc aagatctcgg cgatcgccga cgctctgccg
 60
 atcctggaga aggtcgtaaa ggccggcaag ccgctgctcg tcatcgccga ggacatcgac
 120
 ggggaggccc tgtccaccct cgtcgtcaat aagatccgcg gtaccttcag ctcggtggca
 180
 gtcaaggcgc ccggcttcgg tgaccgccgc aaggcaatgc tgcaggacat cgccaccctc
 240
 accggtggtc aggtcgtcgc tcccagaggtt gggctcaagc tcgaccaggt gggcctcgag
 300
 gttcagggc
 309

<210> 2170
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 2170
 Glu Asp Ala Tyr Val Leu Ile Thr Gln Gly Lys Ile Ser Ala Ile Ala
 1 5 10 15
 Asp Val Leu Pro Ile Leu Glu Lys Val Val Lys Ala Gly Lys Pro Leu
 20 25 30
 Leu Val Ile Ala Glu Asp Ile Asp Gly Glu Ala Leu Ser Thr Leu Val
 35 40 45
 Val Asn Lys Ile Arg Gly Thr Phe Ser Ser Val Ala Val Lys Ala Pro

```

      50              55              60
Gly Phe Gly Asp Arg Arg Lys Ala Met Leu Gln Asp Ile Ala Thr Leu
65              70              75              80
Thr Gly Gly Gln Val Val Ala Pro Glu Val Gly Leu Lys Leu Asp Gln
      85              90              95
Val Gly Leu Glu Val Gln Gly
      100

```

<210> 2171
 <211> 518
 <212> DNA
 <213> Homo sapiens

```

<400> 2171
cgcgtaatgt gtattaaggt ccttggtggc tcgcatcgcc gttatgcagc aatcggtgat
60
atcatcaaag tttcagtgaa ggaagcaatt cctcgcgga aaattaaaaa aggtaatggt
120
cattcagctg tggtagtgcg taccagaaaa ggtgtacgtc gtcccgatgg ttctgttatt
180
cgttttgatc gcaacgcagc ggttatcttg aatgcaaaca accagccagt cggtacacgt
240
atctttggcc ctgtaaccg tgagcttcga aatgaaaatt tcatgaagat tgtttcactg
300
gcgccagaag tactgtaagg aaccgaaaat ggcagcaaaa ataaaacgtg acgatgaagt
360
aattgttatt gccggtaaag ataaaggtaa aactgggaaa gtttctcaag ttttaactaa
420
cggtaaagta attattgaag gtgtaaattgt tcaaaagaaa caccaaaaac caaacctca
480
agcgggcgtg gaaggcgga tcattgaaca gaatgcat
518

```

<210> 2172
 <211> 105
 <212> PRT
 <213> Homo sapiens

```

<400> 2172
Arg Val Met Cys Ile Lys Val Leu Gly Gly Ser His Arg Arg Tyr Ala
1              5              10              15
Ala Ile Gly Asp Ile Ile Lys Val Ser Val Lys Glu Ala Ile Pro Arg
      20              25              30
Gly Lys Ile Lys Lys Gly Asn Val His Ser Ala Val Val Val Arg Thr
      35              40              45
Arg Lys Gly Val Arg Arg Pro Asp Gly Ser Val Ile Arg Phe Asp Arg
      50              55              60
Asn Ala Ala Val Ile Leu Asn Ala Asn Asn Gln Pro Val Gly Thr Arg
65              70              75              80
Ile Phe Gly Pro Val Thr Arg Glu Leu Arg Asn Glu Asn Phe Met Lys
      85              90              95
Ile Val Ser Leu Ala Pro Glu Val Leu
      100              105

```

<210> 2173
 <211> 475
 <212> DNA
 <213> Homo sapiens

<400> 2173
 nntggggaag aaatgccggt gcatgcactt tgtgcagcat taggtgcagg ggtgatgcag
 60
 cgggcgcgtg ccttttgcgg cggggtttcg agcattcatc tggatgcagc attttcgcag
 120
 gcatttcttg taccctcgtc atgcgtttct ccccatgcac acacattatc gcctttgcac
 180
 ccgcagggac gcatggaata cctcgtgaaa tggaagggat ggtcgcagaa gtacagcaca
 240
 tgggaaccgg aggaaaacat cctggatgct cgcttgctcg cagcctttga ggaaagggaa
 300
 agagagatgg agctctatgg ccccaaaaag cgtggacca agcccaaac cttcctcctc
 360
 aaagcgcagg ccaaggcaaa ggccaaaact tacgagtttc gaagtgactc agccaggggc
 420
 atccggatcc cctaccctgg ccgctcgccc caggacctgg cctccacttc ccggg
 475

<210> 2174
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 2174
 Xaa Gly Glu Glu Met Pro Val His Ala Leu Cys Ala Ala Leu Gly Ala
 1 5 10 15
 Gly Val Met Gln Arg Ala Arg Ala Phe Cys Gly Gly Val Ser Ser Ile
 20 25 30
 His Leu Val His Ala Phe Ser His Ala Phe Leu Val Ser Ser Ser Cys
 35 40 45
 Val Ser Pro His Ala His Thr Leu Ser Pro Leu His Pro Gln Gly Arg
 50 55 60
 Met Glu Tyr Leu Val Lys Trp Lys Gly Trp Ser Gln Lys Tyr Ser Thr
 65 70 75 80
 Trp Glu Pro Glu Glu Asn Ile Leu Asp Ala Arg Leu Leu Ala Ala Phe
 85 90 95
 Glu Glu Arg Glu Arg Glu Met Glu Leu Tyr Gly Pro Lys Lys Arg Gly
 100 105 110
 Pro Lys Pro Lys Thr Phe Leu Leu Lys Ala Gln Ala Lys Ala Lys Ala
 115 120 125
 Lys Thr Tyr Glu Phe Arg Ser Asp Ser Ala Arg Gly Ile Arg Ile Pro
 130 135 140
 Tyr Pro Gly Arg Ser Pro Gln Asp Leu Ala Ser Thr Ser Arg
 145 150 155

<210> 2175
 <211> 462
 <212> DNA
 <213> Homo sapiens

<400> 2175
 cgcgacaccc tctttggtgg ggccttcct tctccgaatt cggaaccct ccagactctg
 60
 gccaggagg ttgtcgagcg tggagccgat atcggcattg ccactgatgg tgacgcagac
 120
 cgcctcggta tcattgatga ccaggggcat ttcttgcata ccaaccagat cctcgtattg
 180
 ctgtacacct accttctgga ggacaaggga tggcaggtgc cctgcgtgcg taacctcgcg
 240
 acgaccaccc tgcttgaccg tgtcgccgag gccacgggc agacctgtta cgaggtaccg
 300
 gtcggattta agtgggtgtc gtccaagatg gccgagacca acgccgtcat cgggtggtgag
 360
 tctccggtg gtttgaccgt ccaggggcat attgcaggca aggatggtgt ctatgctggc
 420
 accctgctgg tggaaatgat cgccaagcgg ggtaagaagc tt
 462

<210> 2176
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 2176
 Arg Asp Thr Leu Phe Gly Gly Arg Leu Pro Ser Pro Asn Ser Arg Thr
 1 5 10 15
 Leu Gln Thr Leu Ala Gln Glu Val Val Glu Arg Gly Ala Asp Ile Gly
 20 25 30
 Ile Ala Thr Asp Gly Asp Ala Asp Arg Leu Gly Ile Ile Asp Asp Gln
 35 40 45
 Gly His Phe Leu His Pro Asn Gln Ile Leu Val Leu Leu Tyr Thr Tyr
 50 55 60
 Leu Leu Glu Asp Lys Gly Trp Gln Val Pro Cys Val Arg Asn Leu Ala
 65 70 75 80
 Thr Thr His Leu Leu Asp Arg Val Ala Glu Ala His Gly Gln Thr Cys
 85 90 95
 Tyr Glu Val Pro Val Gly Phe Lys Trp Val Ser Ser Lys Met Ala Glu
 100 105 110
 Thr Asn Ala Val Ile Gly Gly Glu Ser Ser Gly Gly Leu Thr Val Gln
 115 120 125
 Gly His Ile Ala Gly Lys Asp Gly Val Tyr Ala Gly Thr Leu Leu Val
 130 135 140
 Glu Met Ile Ala Lys Arg Gly Lys Lys Leu
 145 150

<210> 2177
 <211> 478
 <212> DNA
 <213> Homo sapiens

<400> 2177
 ctcgagaatc atgacggcga cgacgtgact atctccaccc gtgtgcctcg tgacggcggg
 60

accttggact cgattgtcgg cgtgctggcc ggggcatcct ggtatcagcg ggagatccac
 120
 gacttttttg gtgtgaggtt tgtcggccct ggggcagatg atcgtgccct ccttgtccac
 180
 gatgcaccga aaccgcccct gcgcaaggaa gctgtgttgg cgcagcgagc tgacaccgtg
 240
 tggccgggtg cggctgacca ggctggctcg aagtccgca gtcgacgtct gccggtcggc
 300
 gttcctgacc ctgagacgtg gcggcgatc aaagacggcg aggatattcc ggatgccgag
 360
 gtcacgcgg ccatgtctgg ccggcgcccg cgatcagctg cccgtcgaat ggcaagcacg
 420
 gcgtcaggca ggcaggcatg agacattcga ctatcaacct tgacgtcgac gcgtgcac
 478

<210> 2178

<211> 146

<212> PRT

<213> Homo sapiens

<400> 2178

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Asn | His | Asp | Gly | Asp | Asp | Val | Thr | Ile | Ser | Thr | Arg | Val | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Asp | Gly | Gly | Thr | Leu | Asp | Ser | Ile | Val | Gly | Val | Leu | Ala | Gly | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ser | Trp | Tyr | Gln | Arg | Glu | Ile | His | Asp | Phe | Phe | Gly | Val | Arg | Phe | Val |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Gly | Pro | Gly | Ala | Asp | Asp | Arg | Ala | Leu | Leu | Val | His | Asp | Ala | Pro | Lys |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Pro | Pro | Leu | Arg | Lys | Glu | Ala | Val | Leu | Ala | Gln | Arg | Ala | Asp | Thr | Val |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Trp | Pro | Gly | Ala | Ala | Asp | Gln | Ala | Gly | Ser | Lys | Ser | Ala | Ser | Arg | Arg |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Pro | Val | Gly | Val | Pro | Asp | Pro | Glu | Thr | Trp | Arg | Arg | Ile | Lys | Asp |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gly | Glu | Asp | Ile | Pro | Asp | Ala | Glu | Val | Ile | Ala | Ala | Met | Ser | Gly | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Pro | Arg | Ser | Ala | Ala | Arg | Arg | Met | Ala | Ser | Thr | Ala | Ser | Gly | Arg |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Gln | Ala | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 2179

<211> 296

<212> DNA

<213> Homo sapiens

<400> 2179

gtgcacttcc gagtggacgt cgagcgtcgc attaacgggg ccggcgcggt gggcgcacac
 60
 aagacgtcga tgctgcagga tctggacngc gaccgcgcga tggagatcga cccgctcgtc
 120
 tccgtcgttc aggagatggg acgcctggcc aacgtgccga cgcccacgct cgatgtcgtg
 180

ctccactga tcaagcaacg tgaattcatg acgaagccgg atgccgtggc ggccgcgcag
 240
 gaacgtctgg ctaaagcggc ataaaccagc cgccgaaacc agcggcataa cgcggg
 296

<210> 2180
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 2180
 Val His Phe Arg Val Asp Val Glu Arg Arg Ile Asn Gly Ala Gly Ala
 1 5 10 15
 Val Gly Ala His Lys Thr Ser Met Leu Gln Asp Leu Asp Xaa Asp Arg
 20 25 30
 Ala Met Glu Ile Asp Pro Leu Val Ser Val Val Gln Glu Met Gly Arg
 35 40 45
 Leu Ala Asn Val Pro Thr Pro Thr Leu Asp Val Val Leu Pro Leu Ile
 50 55 60
 Lys Gln Arg Glu Phe Met Thr Lys Pro Asp Ala Val Ala Ala Ala Gln
 65 70 75 80
 Glu Arg Leu Ala Lys Ala Ala
 85

<210> 2181
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 2181
 ngcgcgccgg gatggatcat agtctggctc gatgcatcac gtgcgcgcat gcgcgcgctg
 60
 tcgattcccg acggcatgat cgcggcactc gaccgtaccg gcaaggcgca aacgcacctc
 120
 acgctggcat cgccggaagc ggggtgtcgtc agcgaactga acgtgcgcga cgggtgcgatg
 180
 gtgcgcgccg ggcagacgct cgccaagatt tcgggcctct cgaagctctg gctgatcgtc
 240
 gagattcccg aagcgctcgc gctcgatgcg cgtccgggca tgaccgtcga cgcgacgttc
 300
 tcgggcgata cgacgcagca tttcaccggg cgtatccgcg agatcctgcc gggcatcacc
 360
 accagtagcc gcacgcttca ggcgcgc
 387

<210> 2182
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 2182
 Xaa Ala Pro Gly Trp Ile Ile Val Trp Leu Asp Ala Ser Arg Ala Arg
 1 5 10 15
 Met Arg Ala Leu Ser Ile Pro Asp Gly Met Ile Ala Ala Leu Asp Arg

20 25 30
 Thr Gly Lys Ala Gln Thr His Leu Thr Leu Ala Ser Pro Glu Ala Gly
 35 40 45
 Val Val Ser Glu Leu Asn Val Arg Asp Gly Ala Met Val Ala Pro Gly
 50 55 60
 Gln Thr Leu Ala Lys Ile Ser Gly Leu Ser Lys Leu Trp Leu Ile Val
 65 70 75 80
 Glu Ile Pro Glu Ala Leu Ala Leu Asp Ala Arg Pro Gly Met Thr Val
 85 90 95
 Asp Ala Thr Phe Ser Gly Asp Pro Thr Gln His Phe Thr Gly Arg Ile
 100 105 110
 Arg Glu Ile Leu Pro Gly Ile Thr Ser Ser Arg Thr Leu Gln Ala
 115 120 125
 Arg

<210> 2183
 <211> 310
 <212> DNA
 <213> Homo sapiens

<400> 2183
 aagcttgaaa aacaaatttg tgcacagtct gataacccaa aaatgactga tggattggct
 60
 ctgcattttc caagcagga ggggtcgggc atggagaatg aaacattctg agaaaagact
 120
 taaatgtgga aacttttggg tcaagagggt attctaggag atacaagaaa tatctcctgg
 180
 gggcatccaa aggaataaac actgtaatct tgagtgatgt atggttccat tgcccagga
 240
 atagggatga aaaccataaa ctcccttggg tgggtattaa cttatcantc aaagttacca
 300
 tanataatgg
 310

<210> 2184
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 2184
 Met Val Thr Leu Xaa Asp Lys Leu Ile Pro Thr Gln Arg Ser Leu Trp
 1 5 10 15
 Phe Ser Ser Leu Phe Leu Gly Gln Trp Asn His Thr Ser Leu Lys Ile
 20 25 30
 Thr Val Leu Phe Pro Leu Asp Ala Pro Arg Arg Tyr Phe Leu Tyr Leu
 35 40 45
 Leu Glu Tyr Pro Leu Glu Pro Lys Val Ser Thr Phe Lys Ser Phe Leu
 50 55 60
 Arg Met Phe His Ser Pro Cys Pro Thr Pro Cys Leu Glu Asn Ala
 65 70 75 80
 Glu Pro Ile His Gln Ser Phe Leu Gly Tyr Gln Thr Val His Lys Phe
 85 90 95
 Val Phe Gln Ala

100

<210> 2185
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 2185
 ngaatatcca tgcagcagct cgtcgacaat tttgacggtg ccatccctga cgatcttgac
 60
 tctcttgtga ccctgcccgg agtcggtcgt aagaccgcca atgttgtttt aggtaatgcc
 120
 ttccgcatcc ccggaatcac cccggacacc cacgtcatgc gggatatctc acgtctgggc
 180
 tggaccgatg cgactacccc cgccaagggtg gaaaccgacc tggctgagct ttttgacccg
 240
 tctgaatggg tgatgttggt tcaccgcctc atctggcacg ggcggcggcg ctgtcactcg
 300
 cggcgctcctg cctgcggggt atgcccggtt gccgagtggg gcccgctcctt cggggaaggc
 360
 ccaacggatc ccgaggaggc cgccacgtta gtccgggagc cgcgtcgatg agggggatga
 420
 acgttttcgg cgcggtgatg gccgccttga tgtttgctgg ctgcggggga gatgcgggca
 480
 tagctcatca gcgtgaaaat gccggaatac cgggggtgctc gcatttgccg tcggggccga
 540
 ttgcgaaaag ttccggggccg gccacagagg gccggcccat gcccgatcac ggcttgcaat
 600
 gccttggtga ggggcccagc atctccatgt ctcgggacgac atcgaggggc gtgaccgtcg
 660
 tgacgatctg ggcgtcgtgg tgtcgaccat gtcgtagtga ggctccgctc attgcgaacg
 720
 cgt
 723

<210> 2186
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 2186
 Xaa Ile Ser Met Gln Gln Leu Val Asp Asn Phe Asp Gly Ala Ile Pro
 1 5 10 15
 Asp Asp Leu Asp Ser Leu Val Thr Leu Pro Gly Val Gly Arg Lys Thr
 20 25 30
 Ala Asn Val Val Leu Gly Asn Ala Phe Gly Ile Pro Gly Ile Thr Pro
 35 40 45
 Asp Thr His Val Met Arg Val Ser Arg Arg Leu Gly Trp Thr Asp Ala
 50 55 60
 Thr Thr Pro Ala Lys Val Glu Thr Asp Leu Ala Glu Leu Phe Asp Pro
 65 70 75 80
 Ser Glu Trp Val Met Leu Cys His Arg Leu Ile Trp His Gly Arg Arg
 85 90 95
 Arg Cys His Ser Arg Arg Pro Ala Cys Gly Val Cys Pro Val Ala Glu

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 100 | | 105 | | 110 | | | | | | | | | | |
| Trp | Cys | Pro | Ser | Phe | Gly | Glu | Gly | Pro | Thr | Asp | Pro | Glu | Glu | Ala | Ala |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Thr | Leu | Val | Arg | Glu | Pro | Arg | Arg | | | | | | | | |
| | 130 | | | | | 135 | | | | | | | | | |

<210> 2187
 <211> 342
 <212> DNA
 <213> Homo sapiens

<400> 2187
 nnacgcgtga aggatgcgcc ccggtcgacc ggccatccgt cttgcctcgc aggcattccag
 60
 cccgccatat gctgcaaccg caacaccgct ttgccgtcgc atggcatctc cactccggat
 120
 cgcattgatc caccagggct atcggcgcca aagaagttgc cggggcaaaa tcccggcgag
 180
 gaaagccga tggagtggaa gacgctgctc aacgacaccc gcttcggagg ggtcgccagc
 240
 ctcgatggga cgcgcggacg gtcggagttc cagaaggacc acgaccggat catcttctcc
 300
 gaagccttcc gcaagctggg ccgcaagacc caggtgcacc cg
 342

<210> 2188
 <211> 51
 <212> PRT
 <213> Homo sapiens

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Trp | Lys | Thr | Leu | Leu | Asn | Asp | Thr | Arg | Phe | Gly | Gly | Val | Ala |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ser | Leu | Asp | Gly | Thr | Arg | Gly | Arg | Ser | Glu | Phe | Gln | Lys | Asp | His | Asp |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Arg | Ile | Ile | Phe | Ser | Glu | Ala | Phe | Arg | Lys | Leu | Gly | Arg | Lys | Thr | Gln |
| | | 35 | | | | | 40 | | | | | | 45 | | |
| Val | His | Pro | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |

<210> 2189
 <211> 1412
 <212> DNA
 <213> Homo sapiens

<400> 2189
 ntcgcttcat ggtgcgcaat tacgacaacg ccaagtctca gaatgccgag gcttacaccg
 60
 cgttcttcca cgcgatgcta gatgccgggg tcaacctgcc gccatcgtgc tttagggcct
 120
 gggttcctctc ggacgctcac gacgacgaag ctttcgaggt ttccgcgcc gccctgccga
 180
 gggctgcccc ggcggctgcc caggtgatca gtgcctgaca ccgggctgac ttcgcaggtc
 240

atcgaggcaa tctgtgcctg gttcgacgcc aacggacgcg atctgccgtg gcgccgaccc
 300
 ggcacctccg cgtggggcgt gcttgtagc gaggtcatga gccaacagac cccgatgtcc
 360
 cgggtgatcg ggccgtggca cgagtggatg aaccgctggc ccaccctga tgatttggcg
 420
 gaggaggact ctggggaagc ggttgccgcg tgggggcgcc tgggttaccc gcgtcggggc
 480
 ttacgcctgc attcctgtgc cgtcacgac gccaccgagc acgacggggg tgtgcccac
 540
 agtgacgacg agctcgtcgc cctcccgggt attggcgact acaccgagc cgagtcgtc
 600
 tcttttgcgt ttggcggccg cgccacagt cttgacacca atgtacgtc cctcatcgt
 660
 agagcagagt ctgggatcgc aaactgtcca acctcgggtga cgagggtga gcgggtagtc
 720
 gccgacgcgt tggttcccg cgaagacgtc cgagcggcca agtgggcggg ggcgtcgatg
 780
 gaattggggg cactggtatg cacggcgcg tctccgcagt gtgaggtctg cccgatccgg
 840
 gatggctgca ggtgggtgat cgacggtagg cgggacaatg ccccgggccg tcgaggacag
 900
 ccatggaagg gcacggatcg ccagtgcgc ggcgtgatta tggacgtggt gcgcaacagc
 960
 cctcacgggg tgaaggtcca gatggctctt tccgcctggc ccgagctcga tcaggcatca
 1020
 aggtgcctgg aatccttact cgatgacggg ttagtgcacc gacgaggtaa cttattagc
 1080
 ctgtgacctg agaaattctt ggccccgacc acccaaacag accgagtcca gcagtgatgc
 1140
 cgctgggtta tccttagagg cggtcctcaa attggatcag ccaaaccacg tcaccgatca
 1200
 agacaccatg agcacaacac ccaaacagcc gcgcacggcg acagctgcc gacgccgaca
 1260
 cattgtcgac catctgcgtt ctttggggca ctcggagtcc atcggagatc tttaccaact
 1320
 gttcgggtgc tctacatcga cgattcgccg cgatgtcgat gccctctcgg atgaatcaa
 1380
 gatctggaag atttccgggg gagacgtcat ga
 1412

<210> 2190

<211> 292

<212> PRT

<213> Homo sapiens

<400> 2190

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Pro | Asp | Thr | Gly | Leu | Thr | Ser | Gln | Val | Ile | Glu | Ala | Ile | Cys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ala | Trp | Phe | Asp | Ala | Asn | Gly | Arg | Asp | Leu | Pro | Trp | Arg | Arg | Pro | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ser | Ala | Trp | Gly | Val | Leu | Val | Ser | Glu | Val | Met | Ser | Gln | Gln | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Met | Ser | Arg | Val | Ile | Gly | Pro | Trp | His | Glu | Trp | Met | Asn | Arg | Trp |

| | | | | |
|---|-----|-----|-----|----|
| 50 | | 55 | | 60 |
| Pro Thr Pro Asp Asp Leu Ala Glu Glu Asp Ser Gly Glu Ala Val Ala | | | | |
| 65 | 70 | 75 | 80 | |
| Ala Trp Gly Arg Leu Gly Tyr Pro Arg Arg Ala Leu Arg Leu His Ser | | | | |
| | 85 | 90 | 95 | |
| Cys Ala Val Thr Ile Ala Thr Glu His Asp Gly Gly Val Pro Asn Ser | | | | |
| | 100 | 105 | 110 | |
| Asp Asp Glu Leu Val Ala Leu Pro Gly Ile Gly Asp Tyr Thr Ala Ser | | | | |
| | 115 | 120 | 125 | |
| Ala Val Val Ser Phe Ala Phe Gly Gly Arg Ala Thr Val Leu Asp Thr | | | | |
| | 130 | 135 | 140 | |
| Asn Val Arg Arg Leu Ile Ala Arg Ala Glu Ser Gly Ile Ala Asn Cys | | | | |
| 145 | 150 | 155 | 160 | |
| Pro Thr Ser Val Thr Arg Ala Glu Arg Val Val Ala Asp Ala Leu Val | | | | |
| | 165 | 170 | 175 | |
| Pro Asp Glu Asp Val Arg Ala Ala Lys Trp Ala Val Ala Ser Met Glu | | | | |
| | 180 | 185 | 190 | |
| Leu Gly Ala Leu Val Cys Thr Ala Arg Ser Pro Gln Cys Glu Val Cys | | | | |
| | 195 | 200 | 205 | |
| Pro Ile Arg Asp Gly Cys Arg Trp Val Ile Asp Gly Arg Pro Asp Asn | | | | |
| | 210 | 215 | 220 | |
| Ala Pro Ala Arg Arg Gly Gln Pro Trp Lys Gly Thr Asp Arg Gln Cys | | | | |
| 225 | 230 | 235 | 240 | |
| Arg Gly Val Ile Met Asp Val Val Arg Asn Ser Pro His Gly Val Lys | | | | |
| | 245 | 250 | 255 | |
| Val Gln Met Ala Leu Ser Ala Trp Pro Glu Leu Asp Gln Ala Ser Arg | | | | |
| | 260 | 265 | 270 | |
| Cys Leu Glu Ser Leu Leu Asp Asp Gly Leu Val His Arg Arg Gly Asn | | | | |
| | 275 | 280 | 285 | |
| Leu Ile Ser Leu | | | | |
| 290 | | | | |

<210> 2191

<211> 502

<212> DNA

<213> Homo sapiens

<400> 2191

```

nnacgcgtcg agaatctcta ctctgccccg aacaacgtcc ggcttcgtca ggctcacgat
60
gactcccttg acgacgacac catttccggg ggtagccac attggtgctg cctcatggac
120
tacattgaat cccgttcaat cctgaacggc gttcaggacg tctccagtct cggaaggacc
180
agagtattgc tgaatctagc cgacatgacc gaacgcggcc tgagggggga gtccattacc
240
cgcgaggagg ccctcgagat tcttcgcagc agtgatgatg agctcatgtc aatcatcgcc
300
gccgccggaa aagtgcgtcg ccactttttc gataaccggg ttgcctcaa ctacctggtc
360
aacctcaagt ccggcctgtg tcccgaagac tgctcctatt gctgcgacg tctgggatcg
420
cgtgccgaga tcacgaaata ctctggggcc gatccgcaga aggtacacga cgccgtcgag
480

```


gctgggattg ccggtggtgc ac
502

<210> 2192
<211> 104
<212> PRT
<213> Homo sapiens

<400> 2192
Leu Asn Leu Ala Asp Met Thr Glu Arg Gly Leu Arg Gly Glu Ser Ile
1 5 10 15
Thr Arg Glu Glu Ala Leu Glu Ile Leu Arg Ser Ser Asp Asp Glu Leu
20 25 30
Met Ser Ile Ile Ala Ala Ala Gly Lys Val Arg Arg His Phe Phe Asp
35 40 45
Asn Arg Val Arg Leu Asn Tyr Leu Val Asn Leu Lys Ser Gly Leu Cys
50 55 60
Pro Glu Asp Cys Ser Tyr Cys Ser Gln Arg Leu Gly Ser Arg Ala Glu
65 70 75 80
Ile Thr Lys Tyr Ser Trp Ala Asp Pro Gln Lys Val His Asp Ala Val
85 90 95
Glu Ala Gly Ile Ala Gly Gly Ala
100

<210> 2193
<211> 321
<212> DNA
<213> Homo sapiens

<400> 2193
ccatggggaa tgcagagcac ggacagtcac acagactgtc ctctctggcc ttctggaccc
60
aacatactcc tcttgccaac tgggtattac tggaccttac tgggccttac tggacccaac
120
atactcctct tgccaactgg ggatttaaaa attttaaaag cccctttatc tccctccaca
180
agtcattgtac tgccaacagg gacacactgt tttctttgga aacctgtctg tgtgcccaga
240
cagaggtccc actgccctgg gacagctccc ttgcctanag gggaaggagg gtgtgtgtgc
300
tgtgtgtgtt taggttgggg a
321

<210> 2194
<211> 106
<212> PRT
<213> Homo sapiens

<400> 2194
Met Gly Asn Ala Glu His Gly Gln Ser His Arg Leu Ser Ser Leu Ala
1 5 10 15
Phe Trp Thr Gln His Thr Pro Leu Ala Asn Trp Val Leu Leu Asp Leu
20 25 30
Thr Gly Pro Tyr Trp Thr Gln His Thr Pro Leu Ala Asn Trp Gly Phe

```

      35              40              45
Lys Asn Phe Lys Ser Pro Phe Ile Ser Leu His Lys Ser Cys Thr Ala
      50              55              60
Asn Arg Asp Thr Leu Phe Ser Leu Glu Thr Leu Leu Cys Ala Gln Thr
      65              70              75              80
Glu Val Pro Leu Pro Trp Asp Ser Ser Leu Ala Xaa Arg Gly Arg Arg
      85              90              95
Val Cys Val Leu Cys Val Phe Arg Leu Gly
      100              105

```

<210> 2195
 <211> 504
 <212> DNA
 <213> Homo sapiens

```

<400> 2195
naccgctctc cctacatcaa tgcccaccgc gattgcacct ttgttgatcat gtcacctggc
60
gacggtgtgg cacaccccaa ctttggcaat atcgctccacg acctggtgct gttgcacagc
120
ctgggtgtgc gtctggtact ggtccacggt tcgcgcccgc agatcgacag ccgccttgag
180
gcacgaggcc tgggtccgta ttaccacaag ggcattgcgtg tcaccgatgc atcaacgctc
240
gaatgctga tcgatgctgt cgggcaactg cgcattgcga ttgaagcgcg cttgtcgatg
300
gacatggcgt cttcgccaat gcagggttcg cgtctgcgcg tagccagcgg caacctggtc
360
actgcgcggc cgatcggcgt gctcgacggt gtggattttc accataccgg cgaagtgcgc
420
cgggtggacc gcaagggcat caaccgcctg ctcgatgagc gctcgattgt gctgctgtcg
480
cccttgggtt actcgccac cgg
504

```

<210> 2196
 <211> 168
 <212> PRT
 <213> Homo sapiens

```

<400> 2196
Xaa Ala Ser Pro Tyr Ile Asn Ala His Arg Asp Cys Thr Phe Val Val
1      5      10      15
Met Leu Pro Gly Asp Gly Val Ala His Pro Asn Phe Gly Asn Ile Val
      20      25      30
His Asp Leu Val Leu Leu His Ser Leu Gly Val Arg Leu Val Leu Val
      35      40      45
His Gly Ser Arg Pro Gln Ile Asp Ser Arg Leu Glu Ala Arg Gly Leu
      50      55      60
Val Pro Tyr Tyr His Lys Gly Met Arg Val Thr Asp Ala Ser Thr Leu
      65      70      75      80
Glu Cys Val Ile Asp Ala Val Gly Gln Leu Arg Ile Ala Ile Glu Ala
      85      90      95
Arg Leu Ser Met Asp Met Ala Ser Ser Pro Met Gln Gly Ser Arg Leu

```

```

          100          105          110
Arg Val Ala Ser Gly Asn Leu Val Thr Ala Arg Pro Ile Gly Val Leu
      115          120          125
Asp Gly Val Asp Phe His His Thr Gly Glu Val Arg Arg Val Asp Arg
      130          135          140
Lys Gly Ile Asn Arg Leu Leu Asp Glu Arg Ser Ile Val Leu Leu Ser
145          150          155          160
Pro Leu Gly Tyr Ser Pro Thr Gly
          165

```

<210> 2197
 <211> 351
 <212> DNA
 <213> Homo sapiens

```

<400> 2197
acaagtcctg cgacgattcg ctttccggag gcgggcccag gaatggtaat gaaacccgag
60
ttatggggcc ctgcgctcga cgagattgcc gcgggaaaac gtgccggagg ggctgaacag
120
ttagattccg cagtgcagca catccacggg gctactcacg ataaactgtc cgggtgctgtt
180
ccgaaacgct acgatggctg ggatgtcttg gcaggcgagg acccgaatgc accgttgctg
240
cttgtgccta gcccggctgg tgcagtgttt agtcaaaata aggcacaagc ctggtccaat
300
gaagaccaca ttgtttttgc ctgtgggcgc tatgaaggta ttgatcaacg c
351

```

<210> 2198
 <211> 117
 <212> PRT
 <213> Homo sapiens

```

<400> 2198
Thr Ser Pro Ser Thr Ile Arg Phe Pro Glu Ala Gly Pro Gly Met Val
1      5      10      15
Met Lys Pro Glu Leu Trp Gly Pro Ala Leu Asp Glu Ile Ala Ala Gly
      20      25      30
Lys Arg Ala Gly Gly Ala Glu Gln Leu Asp Ser Ala Val Gln His Ile
      35      40      45
His Gly Ala Thr His Asp Lys Leu Ser Gly Ala Val Pro Lys Arg Tyr
      50      55      60
Asp Gly Arg Asp Val Leu Ala Gly Glu Asp Pro Asn Ala Pro Leu Leu
65      70      75      80
Leu Val Pro Ser Pro Ala Gly Ala Val Phe Ser Gln Asn Lys Ala Gln
      85      90      95
Ala Trp Ser Asn Glu Asp His Ile Val Phe Ala Cys Gly Arg Tyr Glu
      100     105     110
Gly Ile Asp Gln Arg
      115

```

<210> 2199
 <211> 457

<212> DNA

<213> Homo sapiens

<400> 2199

agacgccggc cgccaagatc tgcattcccta ggccacgcta agaccctggg gaagagcgca
 60
 ggagcccggg agaagggtg gaaggagggg actggacgtg cggagaattc cccctaaaa
 120
 ggcagaagcc cccgccccca cctccgagc tccgttcggg cagagcgct gcctgcctgc
 180
 cgttgctggg ggcgcccacc tcgcccagcc atgccaggcc cggccaccga cgcggggaag
 240
 atccctttct gcgacgcca ggaagaaatc cgtgccgggc tcgaaagctc tgagggcggc
 300
 ggcggcccg agaggccagg cgcgcgagg cagcggcaga acatcgtctg gaggaatgtc
 360
 gtctgatga gcttgctcca cttgggggccc gtgtactccc tgggtgctcat ccccaaagcc
 420
 aagccactca ctctgctctg gggtaagtcc cgccggc
 457

<210> 2200

<211> 152

<212> PRT

<213> Homo sapiens

<400> 2200

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Arg | Pro | Pro | Arg | Ser | Ala | Ser | Leu | Gly | His | Ala | Lys | Thr | Leu |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Gly | Lys | Ser | Ala | Gly | Ala | Arg | Glu | Lys | Gly | Trp | Lys | Glu | Gly | Thr | Gly |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Arg | Ala | Glu | Asn | Ser | Pro | Leu | Lys | Gly | Arg | Ser | Pro | Arg | Pro | His | Pro |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Pro | Ser | Ser | Val | Arg | Ala | Glu | Arg | Leu | Pro | Ala | Cys | Arg | Cys | Trp | Gly |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Arg | Pro | Pro | Arg | Pro | Ala | Met | Pro | Gly | Pro | Ala | Thr | Asp | Ala | Gly | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Pro | Phe | Cys | Asp | Ala | Lys | Glu | Glu | Ile | Arg | Ala | Gly | Leu | Glu | Ser |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Glu | Gly | Gly | Gly | Gly | Pro | Glu | Arg | Pro | Gly | Ala | Arg | Gly | Gln | Arg |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gln | Asn | Ile | Val | Trp | Arg | Asn | Val | Val | Leu | Met | Ser | Leu | Leu | His | Leu |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Gly | Ala | Val | Tyr | Ser | Leu | Val | Leu | Ile | Pro | Lys | Ala | Lys | Pro | Leu | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Leu | Trp | Gly | Lys | Ser | Arg | Arg | | | | | | | | |
| 145 | | | | | 150 | | | | | | | | | | |

<210> 2201

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2201

agtactgcga tggacagcta tgtcgtggat ggtggtcgca aattacatgt ttgtggtaac
 60
 aaccctgatt gcatggtta tgaagtcgaa gaaggcgaat tcaagatcaa gggttatgat
 120
 ggtccgacta tcccatgcga taaatgtgat ggtgagatgc agcttaaaac gggtcgtttt
 180
 ggtccatatt tcgcatgtac tagctgtgac aatactcgta aggtactcaa gagtgggtcaa
 240
 cctgctccgc cacgtgtaga cccaatcaaa atggagcatc tacgttcaac gaagcatgat
 300
 gatttcttcg tcttacgtga gggcgctgct ggttta
 336

<210> 2202
 <211> 112
 <212> PRT
 <213> Homo sapiens

<400> 2202
 Ser Thr Ala Met Asp Ser Tyr Val Val Asp Gly Gly Arg Lys Leu His
 1 5 10 15
 Val Cys Gly Asn Asn Pro Asp Cys Asp Gly Tyr Glu Val Glu Glu Gly
 20 25 30
 Glu Phe Lys Ile Lys Gly Tyr Asp Gly Pro Thr Ile Pro Cys Asp Lys
 35 40 45
 Cys Asp Gly Glu Met Gln Leu Lys Thr Gly Arg Phe Gly Pro Tyr Phe
 50 55 60
 Ala Cys Thr Ser Cys Asp Asn Thr Arg Lys Val Leu Lys Ser Gly Gln
 65 70 75 80
 Pro Ala Pro Pro Arg Val Asp Pro Ile Lys Met Glu His Leu Arg Ser
 85 90 95
 Thr Lys His Asp Asp Phe Phe Val Leu Arg Glu Gly Ala Ala Gly Leu
 100 105 110

<210> 2203
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 2203
 ctcgagagat gcagtcccag ccgggggtggg aagctgtgca gacagccccg gatctgggac
 60
 gtgatggaaa actcaacaga ctggttcaga tcttggcccc gagcccagag gcaccgggga
 120
 cccccagggc tgtttctccc tggccacacc agtaccacac ttccaaatgc cctgtagggtg
 180
 accaccaggc cacacaggcc cgtctgaggg gccacaggct gtgcaccatg ggacgcaggc
 240
 ctgtccctgc ctccctccga tgtcctgatg gtg
 273

<210> 2204
 <211> 88
 <212> PRT

<213> Homo sapiens

<400> 2204

```

Met Gln Ser Gln Pro Gly Trp Glu Ala Val Gln Thr Ala Pro Asp Leu
 1             5             10             15
Gly Arg Asp Gly Lys Leu Asn Arg Leu Val Gln Ile Leu Ala Arg Ser
          20             25             30
Pro Glu Ala Pro Gly Thr Pro Arg Ala Val Ser Pro Trp Pro His Gln
          35             40             45
Tyr Pro Thr Ser Lys Cys Pro Val Gly Asp His Gln Ala Thr Gln Ala
          50             55             60
Arg Leu Arg Gly His Arg Leu Cys Thr Met Gly Arg Arg Pro Val Pro
65             70             75             80
Ala Ser Leu Arg Cys Pro Asp Gly
          85

```

<210> 2205

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2205

```

gnnnnnnggng nnnnactggt gtgcatgggt aaaatcctgc aagctactgg gttgccacag
60
catctgtccc actttgtggt ctgcaaatac agcttctggg atcaacagga gccggtgatt
120
gtcgctcctg aagtggacac ctctctctct tccgtcagca aggagccgca ctgcatgggt
180
gtctttgatc attgcaatga gttttctggt aacatcaccg aagactttat cgagcatctt
240
tccgaaggag cattggcaat tgaagtatat ggacataaaa taaacgatcc ccggaaaaac
300
cccgcctgt gggatttggg aatcatccaa gcaaagacac gtagtcttcg ggacagatgg
360
agtgaagtgc ccaggaaatt ggaattc
387

```

<210> 2206

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2206

```

Xaa Xaa Gly Xaa Xaa Leu Val Cys Met Val Lys Ile Leu Gln Ala Thr
 1             5             10             15
Gly Leu Pro Gln His Leu Ser His Phe Val Phe Cys Lys Tyr Ser Phe
          20             25             30
Trp Asp Gln Gln Glu Pro Val Ile Val Ala Pro Glu Val Asp Thr Ser
          35             40             45
Ser Ser Ser Val Ser Lys Glu Pro His Cys Met Val Val Phe Asp His
          50             55             60
Cys Asn Glu Phe Ser Val Asn Ile Thr Glu Asp Phe Ile Glu His Leu
65             70             75             80
Ser Glu Gly Ala Leu Ala Ile Glu Val Tyr Gly His Lys Ile Asn Asp

```

85 90 95
 Pro Arg Lys Asn Pro Ala Leu Trp Asp Leu Gly Ile Ile Gln Ala Lys
 100 105 110
 Thr Arg Ser Leu Arg Asp Arg Trp Ser Glu Val Pro Arg Lys Leu Glu
 115 120 125
 Phe

<210> 2207
 <211> 667
 <212> DNA
 <213> Homo sapiens

<400> 2207
 atctccaacc ccgagaccct ctccaataca gccggcttcg agggctacat cgacctgggc
 60
 cgcgagctct ccagcctgca ctactgctc tgggaggccg tcagccagct ggagcagagc
 120
 atagtatcca aactgggacc cctgcctcgg atcctgaggg acgtccacac agcactgagc
 180
 accccaggta gcgggcagct ccagggacc aatgacctgg cctccacacc gggctctggc
 240
 agcagcagca tctcagctgg gctgcagaag atggtgattg agaacgatct ttccggtctg
 300
 atagatttca cccggttacc gtctccaacc cccgaaaaca aggacttgtt ttttgtcaca
 360
 aggtcctccg ggggccagcc ctacactgcc cgcagctcga gttactcgga agccaacgag
 420
 cctgatcttc agatggccaa cgggtggcaag agcctctcca tgggtggacct ccaggacgcc
 480
 cgcacgctgg atggggaggc aggctccccg gcgggccccg acgtcctccc cacagatggg
 540
 caggccgctg cagctcagct ggtggccggg tggccggccc gggcaacccc agtgaacctg
 600
 gcagggctgg ccacgggtgcg gcgggcaggc cagacaccaa ccacaccagg cacctccgag
 660
 ggcgcgc
 667

<210> 2208
 <211> 222
 <212> PRT
 <213> Homo sapiens

<400> 2208
 Ile Ser Asn Pro Glu Thr Leu Ser Asn Thr Ala Gly Phe Glu Gly Tyr
 1 5 10 15
 Ile Asp Leu Gly Arg Glu Leu Ser Ser Leu His Ser Leu Leu Trp Glu
 20 25 30
 Ala Val Ser Gln Leu Glu Gln Ser Ile Val Ser Lys Leu Gly Pro Leu
 35 40 45
 Pro Arg Ile Leu Arg Asp Val His Thr Ala Leu Ser Thr Pro Gly Ser
 50 55 60
 Gly Gln Leu Pro Gly Thr Asn Asp Leu Ala Ser Thr Pro Gly Ser Gly

```

65          70          75          80
Ser Ser Ser Ile Ser Ala Gly Leu Gln Lys Met Val Ile Glu Asn Asp
          85          90          95
Leu Ser Gly Leu Ile Asp Phe Thr Arg Leu Pro Ser Pro Thr Pro Glu
          100          105          110
Asn Lys Asp Leu Phe Phe Val Thr Arg Ser Ser Gly Val Gln Pro Ser
          115          120          125
Pro Ala Arg Ser Ser Ser Tyr Ser Glu Ala Asn Glu Pro Asp Leu Gln
          130          135          140
Met Ala Asn Gly Gly Lys Ser Leu Ser Met Val Asp Leu Gln Asp Ala
145          150          155          160
Arg Thr Leu Asp Gly Glu Ala Gly Ser Pro Ala Gly Pro Asp Val Leu
          165          170          175
Pro Thr Asp Gly Gln Ala Ala Ala Ala Gln Leu Val Ala Gly Trp Pro
          180          185          190
Ala Arg Ala Thr Pro Val Asn Leu Ala Gly Leu Ala Thr Val Arg Arg
          195          200          205
Ala Gly Gln Thr Pro Thr Thr Pro Gly Thr Ser Glu Gly Ala
          210          215          220

```

<210> 2209

<211> 353

<212> DNA

<213> Homo sapiens

<400> 2209

```

ngggaagttg gtactagcct cccaaagcca ctctcctgag tgacattgag agcatcctat
60
agagaaggcc atgagagaga tagcactggg acagatgggtg tcagcagagg ggactccaga
120
ccacagcaga agtgaccaag ctgtagcttc cttagatggc cccaagggtg ggaggcttca
180
cacagcagag cctgggtctg gaggcacctt ggggatgttt ttccccatta ggcccctgag
240
ctctatggaa gcacttaact gcctgttccc cgcttattct gtgtttaaac caaggaaaca
300
acatgcctgg ggtctgaaat cctggattca aatcctgact gtgttggtgtg ctt
353

```

<210> 2210

<211> 94

<212> PRT

<213> Homo sapiens

<400> 2210

```

Met Arg Glu Ile Ala Leu Gly Gln Met Val Ser Ala Glu Gly Thr Pro
1          5          10          15
Asp His Ser Arg Ser Asp Gln Ala Val Ala Ser Leu Asp Gly Pro Lys
          20          25          30
Gly Gly Arg Leu His Thr Ala Glu Pro Gly Ser Gly Gly Thr Leu Gly
          35          40          45
Met Phe Phe Pro Ile Arg Pro Leu Ser Ser Met Glu Ala Leu Asn Cys
          50          55          60
Leu Phe Pro Ala Tyr Ser Val Phe Lys Pro Arg Lys Gln His Ala Trp

```


1629

<212> DNA

<213> Homo sapiens

<400> 2213

acgcgtccga ccggcagttc cggcagctgc gggaaagctg cgatgcgctc gccgagcatt
60
gccggtgctt cgacacactg ggttatatcg ccctcaaagc acaggtctac gaaggttctg
120
acggaaggcc cggccaatcc gatcgcgggc tcggcgctgc gcatcatccg ggcgcgctg
180
tcgcagctct ggggcacgtc gctgctccgc aacggacggg cggaacagag tgtggtggag
240
atcgcccggt tggtcgacgc gatcacgtca cgggacgagg aagccgccca gcgtgcactg
300
ctcgaccaca atcgacgcgc gttggaa
327

<210> 2214

<211> 95

<212> PRT

<213> Homo sapiens

<400> 2214

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Ser | Pro | Ser | Ile | Ala | Gly | Ala | Ser | Thr | His | Trp | Val | Ile | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Ser | Lys | His | Arg | Ser | Thr | Lys | Val | Leu | Thr | Glu | Gly | Pro | Ala | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Ile | Ala | Ala | Ser | Ala | Leu | Arg | Ile | Ile | Arg | Ala | Arg | Val | Ser | Gln |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Leu | Trp | Gly | Thr | Ser | Leu | Leu | Arg | Asn | Gly | Arg | Ala | Glu | Gln | Ser | Val |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Val | Glu | Ile | Ala | Arg | Leu | Val | Asp | Ala | Ile | Thr | Ser | Arg | Asp | Glu | Glu |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Ala | Ala | Gln | Arg | Ala | Leu | Leu | Asp | His | Asn | Arg | Ser | Ala | Leu | Glu | |
| | | | 85 | | | | | 90 | | | | | | 95 | |

<210> 2215

<211> 430

<212> DNA

<213> Homo sapiens

<400> 2215

ctggggatca tgccctacat cactgcgtcg atcatcctgc agctgctgac agtcgtgatc
60
ccgaagctgg aaacccttaa gaaggagggc gcgtccggtc agaacaagat caccagctac
120
accggttacc tcaactctcgt gcttggcctg ttgcaggcaa cggccttcgt cacgcttgcc
180
acctccggcc gtctattcac cnntgcagct ntgccagtcg tctactccac ctcggtcttc
240
gaagtcgtcg tcatgatcct gactatgacg gccggtacga ccatcgatcat gtggatgggt
300
gagctcatca ccgaccgcgg tatcggaac ggtatgtcga tcatgatttt cactcagatt
360

gcggcgcggtt tccctgactc gctgtggtct atcaaggctc ctcgaaatgg cgccgggtcag
 420
 gctcacgcgt
 430

<210> 2216
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 2216
 Leu Gly Ile Met Pro Tyr Ile Thr Ala Ser Ile Ile Leu Gln Leu Leu
 1 5 10 15
 Thr Val Val Ile Pro Lys Leu Glu Thr Leu Lys Lys Glu Gly Ala Ser
 20 25 30
 Gly Gln Asn Lys Ile Thr Gln Tyr Thr Arg Tyr Leu Thr Leu Val Leu
 35 40 45
 Gly Leu Leu Gln Ala Thr Ala Phe Val Thr Leu Ala Thr Ser Gly Arg
 50 55 60
 Leu Phe Thr Xaa Ala Ala Xaa Pro Val Val Tyr Ser Thr Ser Val Phe
 65 70 75 80
 Glu Val Val Val Met Ile Leu Thr Met Thr Ala Gly Thr Thr Ile Val
 85 90 95
 Met Trp Met Gly Glu Leu Ile Thr Asp Arg Gly Ile Gly Asn Gly Met
 100 105 110
 Ser Ile Met Ile Phe Thr Gln Ile Ala Ala Arg Phe Pro Asp Ser Leu
 115 120 125
 Trp Ser Ile Lys Val Ala Arg Asn Gly Ala Gly Gln Ala His Ala
 130 135 140

<210> 2217
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 2217
 accagggccg cttcgaagga cctctctcca gctatcgtga cgacgacggc gaagcgggct
 60
 atgacgtggc tcgatgacga cgtgggccc gacctgttga atcaggctga ttccatggac
 120
 catgccctgg aggccaccgt cccaggtcgg gtcaccacgc cggacgccca agtcatccag
 180
 acctgtgccg tgttgcgtag ccttgctcgc gtggcagtca gccagctggg ccgaaatgac
 240
 gaggactcta gggaaccagt cgatgcggag agagtacagg ctcaagcgnc gatgcgggag
 300
 gttttcgaga ccgccgaacg catggtgggg ctggccgccg ccgacgtggt gtgggtctct
 360
 gagtctgaga agggataccg cagcattcac gtcgctccgc tgagtgttgg cggcttgcta
 420
 cgagagaatg tctttgctca gtcc
 444

<210> 2218

<211> 148
 <212> PRT
 <213> Homo sapiens

<400> 2218
 Thr Arg Ala Ala Ser Lys Asp Leu Ser Pro Ala Ile Val Thr Thr Thr
 1 5 10 15
 Ala Lys Arg Ala Met Thr Trp Leu Asp Asp Asp Val Gly Ala Asp Leu
 20 25 30
 Leu Asn Gln Ala Asp Ser Met Asp His Ala Leu Glu Ala Thr Val Pro
 35 40 45
 Gly Arg Val Thr Thr Pro Asp Ala Gln Val Ile Gln Thr Cys Ala Val
 50 55 60
 Leu Arg Asp Leu Ala Arg Val Ala Val Ser Gln Leu Gly Arg Asn Asp
 65 70 75 80
 Glu Asp Ser Arg Glu Pro Val Asp Ala Glu Arg Val Gln Ala Gln Ala
 85 90 95
 Xaa Met Arg Glu Val Phe Glu Thr Ala Glu Arg Met Val Gly Leu Ala
 100 105 110
 Ala Ala Asp Val Val Trp Val Ser Glu Ser Glu Lys Gly Tyr Arg Ser
 115 120 125
 Ile His Val Ala Pro Leu Ser Val Gly Gly Leu Leu Arg Glu Asn Val
 130 135 140
 Phe Ala Gln Ser
 145

<210> 2219
 <211> 688
 <212> DNA
 <213> Homo sapiens

<400> 2219
 acgcgtaccg tcgttggcat gagcgtcctg ccactggaaa tttggctgtc attcagctac
 60
 ggcattacga atatggcgtg gatgtggcta tggttcgacg agcccggaac ccgttgggag
 120
 tggctgatcc ttttccccgc tgggtggctg accagcgctt tggtcagtca ggggttcggt
 180
 ggaatgttcc atagtgtgca gattgcgcgt catgtcagca gttaccacgg catcatggtc
 240
 gctttcgcgc tcgttgggta cggatggctt gcgatgcaca acttgcgtca ccctgatgag
 300
 cgctattcga ttcgctcggc cttgataatc ggcacgggca tccagttcac ctgggaggca
 360
 gtgctgatga tctcgggtat caggccgttg acatggcgcc cgcttggtat cgattctctc
 420
 atcgagacga atctcggcgc tccgttcattg ttgctcattg tgaaagcttg gcgcgcgcca
 480
 cccgaaggaa ttcttggtc taccagtccg cggccgaccg cccgtggcac agcgcgagtc
 540
 tatatgaggg atgatcttgt ttctcgacgc cttctacagc gtccttgaga gcctctgcga
 600
 gcgaagggcg cgggtgtagg tctccccggg gctcgttgtg gtccctctctc tgcgtgacgc
 660

agagccgtgt gatgaggcga agtcatga
688

<210> 2220
<211> 189
<212> PRT
<213> Homo sapiens

<400> 2220
Met Ser Val Leu Pro Leu Glu Ile Trp Leu Ser Phe Ser Tyr Gly Ile
1 5 10 15
Thr Asn Met Ala Trp Met Trp Leu Trp Phe Asp Glu Pro Gly Asn Arg
20 25 30
Trp Glu Trp Ser Ile Leu Phe Pro Ala Gly Trp Leu Thr Ser Ala Leu
35 40 45
Val Ser Gln Gly Phe Gly Gly Met Phe His Ser Val Gln Ile Ala Arg
50 55 60
His Val Ser Ser Tyr His Gly Ile Met Val Ala Phe Ala Leu Val Gly
65 70 75 80
Tyr Gly Trp Leu Ala Met His Asn Leu Arg His Pro Asp Glu Arg Tyr
85 90 95
Ser Ile Arg Ser Ala Leu Ile Ile Gly Ile Gly Ile Gln Phe Thr Trp
100 105 110
Glu Ala Val Leu Met Ile Ser Gly Ile Arg Pro Leu Thr Trp Arg Pro
115 120 125
Leu Val Ile Asp Ser Leu Ile Glu Thr Asn Leu Gly Ala Pro Phe Met
130 135 140
Leu Leu Ile Val Lys Ala Trp Arg Ala Pro Pro Glu Gly Ile Pro Gly
145 150 155 160
Ser Thr Ser Pro Arg Pro Thr Ala Arg Gly Thr Ala Arg Val Tyr Met
165 170 175
Arg Asp Asp Leu Val Ser Arg Arg Leu Leu Gln Arg Pro
180 185

<210> 2221
<211> 530
<212> DNA
<213> Homo sapiens

<400> 2221
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aaagaagagc aaaccgccat cgctaacgct ctttccgaca tggacaccga actcgacgcc
120
ctacaacaac gcctcagtaa aacaaaaacc atcaagcaag gcatgatgca agaactactc
180
acagggaaaa cgagggttgg atgagccaca aggtgaattt agtgcattgag ctggataagc
240
gtattatctc ggtaaatacg ttattgtcac agcctgagct tgctattccg gcttatcagc
300
ggccttataa atgggtcacia gagaacctaa atgcgctgat gaggattta cgaatttatc
360
gtaacaaatc ggcttatcgg ctggggacgg tgggttttca ttatcataat gaaccgtag
420

acaacgagaa tacccacaag ctggatattg tagacgggtca gcaacgtacc ttaaccttgt
 480
 tgctgctagt caaagccatt ttagaagaac gggtgtctgc gttaacgcgt
 530

<210> 2222
 <211> 67
 <212> PRT
 <213> Homo sapiens

<400> 2222
 Thr Ser Val Ala Ala Ile Tyr Thr Arg Asp Leu Leu Gln Leu Ser Leu
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 Ile Leu Pro Pro Lys Glu Glu Gln Thr Ala Ile Ala Asn Val Leu Ser
 20 25 30
 Asp Met Asp Thr Glu Leu Asp Ala Leu Gln Gln Arg Leu Ser Lys Thr
 35 40 45
 Lys Thr Ile Lys Gln Gly Met Met Gln Glu Leu Leu Thr Gly Lys Thr
 50 55 60
 Arg Leu Val
 65

<210> 2223
 <211> 482
 <212> DNA
 <213> Homo sapiens

<400> 2223
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 120
 tgcatttata caacggccgg gacagggccg gcagttcaca gtccagtttg taaagcgctg
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 240
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 300
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 360
 gctccacac aagcccgctgc ccacattgga tctccaatgt gggctacagc cttactgcat
 420
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 480
 gt
 482

<210> 2224
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 2224
 Met Ser Gln Ala Tyr Arg Cys Gly Ala Ser Pro Leu Met Lys His Asn

| | | | |
|---|-----|----|----|
| 1 | 5 | 10 | 15 |
| Val Ile Leu Val Val Leu Asp Gly Leu Asn Tyr Glu Val Ala Arg His | | | |
| 20 | 25 | 30 | |
| Ala Met Gly His Leu Gln Ala Tyr Ile Ser Ala Gly Arg Ala Ala Leu | | | |
| 35 | 40 | 45 | |
| Tyr Lys Leu Asp Cys Glu Leu Pro Ala Leu Ser Arg Pro Leu Asp Lys | | | |
| 50 | 55 | 60 | |
| Cys Ile Phe Thr Gly Val Pro Pro Ile Asp Ser Gly Ile Val His Asn | | | |
| 65 | 70 | 75 | 80 |
| Asn Val Ser Arg Leu Ser Asn Gln Arg Ser Ile Phe His Tyr Ala Thr | | | |
| 85 | 90 | 95 | |
| Asp Ala Gly Leu Thr Thr Ala Ala Ala | | | |
| 100 | 105 | | |

<210> 2225
 <211> 753
 <212> DNA
 <213> Homo sapiens

<400> 2225
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 120
 cgattcactg aggtgtccgc cgtgtccgag acgttcatcc gtcagcgtcc caagccactc
 180
 aaggagggca tcggccacac aggttgggtc gtctcggacg agctcgggccc ggtgggcaac
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 300
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 360
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 420
 cgtgccctgc agggatatgt caactgcatg gccggaccag acttcccgga gttcatgcgt
 480
 ttccaaccgg gagccggaac atccatgggc tttgacgaca tgaaggctgt tgaggctgcg
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 600
 gcctcagcgg aggtcaacga tgcgatcgtt gcctcctgcg ggggaccatg cctggcatga
 660
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<210> 2226
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 2226
 Xaa Ala Ser Asp Pro His Gly Pro Leu Thr Trp Arg Tyr Asp Arg Glu

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Arg Ala Gly Ala Gly Val Ile Leu Asp Leu Met Gly His Gly Glu Asp
20           25           30
Leu Val Gln Tyr Leu Leu Lys Gly Arg Phe Thr Glu Val Ser Ala Val
35           40           45
Ser Glu Thr Phe Ile Arg Gln Arg Pro Lys Pro Leu Lys Glu Gly Ile
50           55           60
Gly His Thr Gly Trp Val Val Ser Asp Glu Leu Gly Pro Val Gly Asn
65           70           75           80
Glu Asp Tyr Cys Ala Val Ile Ala Arg Met Glu Asn Gly Val Met Cys
85           90           95
Thr Leu Glu Ser Ser Arg Val Ser Val Gly Pro Arg Ala Glu Tyr Ile
100          105          110
Val Glu Ile Tyr Gly Thr Asp Gly Ser Ile Arg Trp Asn Phe Glu Asp
115          120          125
Leu Asn His Leu Gln Val Cys Leu Gly Arg Asn Asn Arg Ala Leu Gln
130          135          140
Gly Tyr Val Asn Cys Met Ala Gly Pro Asp Phe Pro Glu Phe Met Arg
145          150          155          160
Phe Gln Pro Gly Ala Gly Thr Ser Met Gly Phe Asp Asp Met Lys Val
165          170          175
Val Glu Ala Ala Lys Phe Val Arg Gly Val Leu Asp Gly Gln Gln Tyr
180          185          190
Gly Pro Ser Val Ala Asp Gly Trp Ala Ser Ala Glu Val Asn Asp Ala
195          200          205
Ile Val Ala Ser Cys Gly Gly Pro Cys Leu Ala
210          215

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<210> 2227

<211> 324

<212> DNA

<213> Homo sapiens

<400> 2227

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gactttgtac gaacgcttcg tactcaccag gcaactgtgg gtaaatcccc ggtaaagcca
180
ggaattccat ataagcagtt gacagttggg gtccccaagg agattttcca aaacgagaag
240
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324

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<210> 2228

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2228

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Met Ala His Leu Leu Lys Thr Val Val Ala Gly Cys Ser Cys Pro Phe

```



```

      1           5           10           15
Leu Ser Asn Leu Gly Ser Ser Lys Val Leu Pro Gly Lys Arg Asp Phe
      20           25           30
Val Arg Thr Leu Arg Thr His Gln Ala Leu Trp Cys Lys Ser Pro Val
      35           40           45
Lys Pro Gly Ile Pro Tyr Lys Gln Leu Thr Val Gly Val Pro Lys Glu
      50           55           60
Ile Phe Gln Asn Glu Lys Arg Val Ala Leu Ser Pro Ala Gly Val Gln
      65           70           75           80
Ala Leu Val Lys Gln Gly Phe Asn Val Val Val Glu Ser Gly Ala Gly
      85           90           95
Glu Ala

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<210> 2229
 <211> 320
 <212> DNA
 <213> Homo sapiens

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<400> 2229
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120
tagctcagcc ccttcctgcg tgccctggccc tgggaggatg ccattccccag tccccctcttc
180
tgggccctgc tctggggact cggcacagat ggatccagtg catcctcagc cccctgagaa
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300
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320

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<210> 2230
 <211> 94
 <212> PRT
 <213> Homo sapiens

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<400> 2230
Met Gly Gly Pro Asp Gly Glu Ala His Arg Glu Gly Thr Gly Gly Gly
      1           5           10           15
Arg Gly Gly Glu Lys Thr Asp Ser Gly Arg Thr Leu Ala Gln Pro Leu
      20           25           30
Pro Ala Cys Leu Ala Leu Gly Gly Cys His Pro Gln Ser Pro Leu Leu
      35           40           45
Gly Pro Ala Leu Gly Thr Arg His Arg Trp Ile Gln Cys Ile Leu Ser
      50           55           60
Pro Leu Arg Ser Cys Ala Ala Ile Ser Ser Phe Ser Gly Tyr Arg Ala
      65           70           75           80
Arg Glu Ala Ala Ala Gln Gln Ala Ser Val Pro Pro Ser Cys
      85           90

```

<210> 2231
 <211> 671

<212> DNA

<213> Homo sapiens

<400> 2231

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120
aaagcccagt tcaatgcccc actgggaaat gcttcccatt aattgtggaa ttgtcgtgcc
180
catttactgt cggggtgaca gggggggtgg gggtcagagt agagacagga gaaggaagtg
240
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300
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360
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420
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480
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540
ggcccctgat gccacaggct gtctggaagg ctgggtcact gctgagaaga caaggagaca
600
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cagctcttaa g
671

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<210> 2232

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2232

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Met Glu Lys Ser Pro Val Gln Cys Pro Thr Gly Lys Cys Phe Pro Leu
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Ile Val Glu Leu Ser Cys Pro Phe Thr Val Gly Val Thr Gly Gly Val
20     25     30
Gly Val Arg Val Glu Thr Gly Glu Gly Ser Glu His Leu Trp Asp Thr
35     40     45
His His Val Pro Gly Thr Glu Pro Tyr Leu Asp Leu Leu Gln Pro Ser
50     55     60
Gln Trp His Cys Glu Ala Ser Val Val Leu Gln Met Arg Lys Leu Arg
65     70     75     80
Phe Val Ala Ile Thr Asp Lys Gln Met Thr Leu Asn Gly Ala Gly His
85     90     95
Val Ile Cys His Arg Tyr Met His Arg Thr Met Gln Thr Ser Gln Ser
100    105    110
Pro Leu Ser Gln Thr Arg Leu Thr Ile Arg Asp Met Gln Thr Leu Ala
115    120    125
Gly Leu Gly Leu Phe Pro Ile Gly Asp Ser Leu Val Pro Pro Trp Pro
130    135    140
Leu Met Pro Thr Ala Val Trp Lys Ala Gly Ser Leu Leu Arg Arg Gln

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145 150 155 160
 Gly Asp Ile Phe Ser His Gln Leu Ser Phe Phe Tyr Ser Phe Leu Asp
 165 170 175
 Thr

<210> 2233
 <211> 6199
 <212> DNA
 <213> Homo sapiens

<400> 2233
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 120
 agtgcacaaa gtgaagctga aaaggaaagg attatgggaa agatggaagc tgaccagag
 180
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 240
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 360
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 420
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 480
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 540
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 660
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 720
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<210> 2234

<211> 1701

<212> PRT

<213> Homo sapiens

<400> 2234

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Gln | Arg | Lys | Gly | Tyr | Glu | Glu | Val | His | Val | Pro | Ala | Leu | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Lys | Pro | Phe | Gly | Ser | Glu | Glu | Gln | Leu | Leu | Pro | Val | Glu | Lys | Leu |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Pro | Lys | Tyr | Ala | Gln | Ala | Gly | Phe | Gly | Phe | Lys | Thr | Leu | Asn | Arg | |
| | | 35 | | | | 40 | | | | 45 | | | | | |
| Ile | Gln | Ser | Lys | Leu | Tyr | Arg | Ala | Ala | Leu | Glu | Thr | Asp | Glu | Asn | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Leu | Cys | Ala | Pro | Thr | Gly | Ala | Gly | Lys | Thr | Asn | Val | Ala | Leu | Met |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Cys | Met | Leu | Arg | Glu | Ile | Gly | Lys | His | Ile | Asn | Met | Asp | Gly | Thr | Ile |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asn | Val | Asp | Asp | Phe | Lys | Ile | Ile | Tyr | Ile | Ala | Pro | Met | Arg | Ser | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Val | Gln | Glu | Met | Val | Gly | Ser | Phe | Gly | Lys | Arg | Leu | Ala | Thr | Tyr | Gly |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Ile | Thr | Val | Ala | Glu | Leu | Thr | Gly | Asp | His | Gln | Leu | Cys | Lys | Glu | Glu |
| | 130 | | | | | 135 | | | | 140 | | | | | |
| Ile | Ser | Ala | Thr | Gln | Ile | Ile | Val | Cys | Thr | Pro | Glu | Lys | Trp | Asp | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Ile | Thr | Arg | Lys | Gly | Gly | Glu | Arg | Thr | Tyr | Thr | Gln | Leu | Val | Arg | Leu |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ile | Val | Leu | Asp | Glu | Ile | His | Leu | Leu | His | Asp | Asp | Arg | Gly | Pro | Val |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Leu | Glu | Ala | Leu | Val | Ala | Arg | Ala | Ile | Arg | Asn | Ile | Glu | Met | Thr | Gln |
| | | 195 | | | | | 200 | | | | | | 205 | | |
| Glu | Asp | Val | Arg | Leu | Ile | Gly | Leu | Ser | Ala | Thr | Leu | Pro | Asn | Tyr | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Val | Ala | Thr | Phe | Leu | Arg | Val | Asp | Pro | Ala | Lys | Gly | Leu | Phe | Tyr |
| 225 | | | | | 230 | | | | 235 | | | | | 240 | |
| Phe | Asp | Asn | Ser | Phe | Arg | Pro | Val | Pro | Leu | Glu | Gln | Thr | Tyr | Val | Gly |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Ile | Thr | Glu | Lys | Lys | Ala | Ile | Lys | Arg | Phe | Gln | Ile | Met | Asn | Glu | Ile |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Val | Tyr | Glu | Lys | Ile | Met | Glu | His | Ala | Gly | Lys | Asn | Gln | Val | Leu | Val |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Phe | Val | His | Ser | Arg | Lys | Glu | Thr | Gly | Lys | Thr | Ala | Arg | Ala | Ile | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Met | Cys | Leu | Glu | Lys | Asp | Thr | Leu | Gly | Leu | Phe | Leu | Arg | Glu | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Ser | Ala | Ser | Thr | Glu | Val | Leu | Arg | Thr | Glu | Ala | Glu | Gln | Cys | Lys | Asn |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Glu | Leu | Lys | Asp | Leu | Leu | Pro | Tyr | Gly | Phe | Ala | Ile | His | His | Ala |

340 345 350
 Gly Met Thr Arg Val Asp Arg Thr Leu Val Glu Asp Leu Phe Ala Asp
 355 360 365
 Lys His Ile Gln Val Leu Val Ser Thr Ala Thr Leu Ala Trp Gly Val
 370 375 380
 Asn Leu Pro Ala His Thr Val Ile Ile Lys Gly Thr Gln Val Tyr Ser
 385 390 395 400
 Pro Glu Lys Gly Arg Trp Thr Glu Leu Gly Ala Leu Asp Ile Leu Gln
 405 410 415
 Met Leu Gly Arg Ala Gly Arg Pro Gln Tyr Asp Thr Lys Gly Glu Gly
 420 425 430
 Ile Leu Ile Thr Ser His Gly Glu Leu Gln Tyr Tyr Leu Ser Leu Leu
 435 440 445
 Asn Gln Gln Leu Pro Ile Glu Ser Gln Met Val Ser Lys Leu Pro Asp
 450 455 460
 Met Leu Asn Ala Glu Ile Val Leu Gly Asn Val Gln Asn Ala Lys Asp
 465 470 475 480
 Ala Val Asn Trp Leu Gly Tyr Ala Tyr Leu Tyr Ile Arg Met Leu Arg
 485 490 495
 Ser Pro Thr Leu Tyr Gly Ile Ser His Asp Asp Leu Lys Gly Asp Pro
 500 505 510
 Leu Leu Asp Gln Arg Arg Leu Asp Leu Val His Thr Ala Ala Leu Met
 515 520 525
 Leu Asp Lys Asn Asn Leu Val Lys Tyr Asp Lys Lys Thr Gly Asn Phe
 530 535 540
 Gln Val Thr Glu Leu Gly Arg Ile Ala Ser His Tyr Tyr Ile Thr Asn
 545 550 555 560
 Asp Thr Val Gln Thr Tyr Asn Gln Leu Leu Lys Pro Thr Leu Ser Glu
 565 570 575
 Ile Glu Leu Phe Arg Val Phe Ser Leu Ser Ser Glu Phe Lys Asn Ile
 580 585 590
 Thr Val Arg Glu Glu Glu Lys Leu Glu Leu Gln Lys Leu Leu Glu Arg
 595 600 605
 Val Pro Ile Pro Val Lys Glu Ser Ile Glu Glu Pro Ser Ala Lys Ile
 610 615 620
 Asn Val Leu Leu Gln Ala Phe Ile Ser Gln Leu Lys Leu Glu Gly Phe
 625 630 635 640
 Ala Leu Met Ala Asp Met Val Tyr Val Thr Gln Ser Ala Gly Arg Leu
 645 650 655
 Met Arg Ala Ile Phe Glu Ile Val Leu Asn Arg Gly Trp Ala Gln Leu
 660 665 670
 Thr Asp Lys Thr Leu Asn Leu Cys Lys Met Ile Asp Lys Arg Met Trp
 675 680 685
 Gln Ser Met Cys Pro Leu Arg Gln Phe Arg Lys Leu Pro Glu Glu Val
 690 695 700
 Val Lys Lys Ile Glu Lys Lys Asn Phe Pro Phe Glu Arg Leu Tyr Asp
 705 710 715 720
 Leu Asn His Asn Glu Ile Gly Glu Leu Ile Arg Met Pro Lys Met Gly
 725 730 735
 Lys Thr Ile His Lys Tyr Val His Leu Phe Pro Lys Leu Glu Leu Ser
 740 745 750
 Val His Leu Gln Pro Ile Thr Arg Ser Thr Leu Lys Val Glu Leu Thr
 755 760 765
 Ile Thr Pro Asp Phe Gln Trp Asp Glu Lys Val His Gly Ser Ser Glu

| | | |
|---|------|------|
| 770 | 775 | 780 |
| Ala Phe Trp Ile Leu Val Glu Asp Val Asp Ser Glu Val Ile Leu His | | |
| 785 | 790 | 795 |
| His Glu Tyr Phe Leu Leu Lys Ala Lys Tyr Ala Gln Asp Glu His Leu | | 800 |
| | 805 | 810 |
| Ile Thr Phe Phe Val Pro Val Phe Glu Pro Leu Pro Pro Gln Tyr Phe | | 815 |
| | 820 | 825 |
| Ile Arg Val Val Ser Asp Arg Trp Leu Ser Cys Glu Thr Gln Leu Pro | | 830 |
| | 835 | 840 |
| Val Ser Phe Arg His Leu Ile Leu Pro Glu Lys Tyr Pro Pro Pro Thr | | 845 |
| | 850 | 855 |
| Glu Leu Leu Asp Leu Gln Pro Leu Pro Val Ser Ala Leu Arg Asn Ser | | 860 |
| 865 | 870 | 875 |
| Ala Phe Glu Ser Leu Tyr Gln Asp Lys Phe Pro Phe Phe Asn Pro Ile | | 880 |
| | 885 | 890 |
| Gln Thr Gln Val Phe Asn Thr Val Tyr Asn Ser Asp Asp Asn Val Phe | | 895 |
| | 900 | 905 |
| Val Gly Ala Pro Thr Gly Ser Gly Lys Thr Ile Cys Ala Glu Phe Ala | | 910 |
| | 915 | 920 |
| Ile Leu Arg Met Leu Leu Gln Ser Ser Glu Gly Arg Cys Val Tyr Ile | | 925 |
| | 930 | 935 |
| Thr Pro Met Glu Ala Leu Ala Glu Gln Val Tyr Met Asp Trp Tyr Glu | | 940 |
| 945 | 950 | 955 |
| Lys Phe Gln Asp Arg Leu Asn Lys Lys Val Val Leu Leu Thr Gly Glu | | 960 |
| | 965 | 970 |
| Thr Ser Thr Asp Leu Lys Leu Leu Gly Lys Gly Asn Ile Ile Ile Ser | | 975 |
| | 980 | 985 |
| Thr Pro Glu Lys Trp Asp Ile Leu Ser Arg Arg Trp Lys Gln Arg Lys | | 990 |
| | 995 | 1000 |
| Asn Val Gln Asn Ile Asn Leu Phe Val Val Asp Glu Val His Leu Ile | | 1005 |
| | 1010 | 1015 |
| Gly Gly Glu Asn Gly Pro Val Leu Glu Val Ile Cys Ser Arg Met Arg | | 1020 |
| 1025 | 1030 | 1035 |
| Tyr Ile Ser Ser Gln Ile Glu Arg Pro Ile Arg Ile Val Ala Leu Ser | | 1040 |
| | 1045 | 1050 |
| Ser Ser Leu Ser Asn Ala Lys Asp Val Ala His Trp Leu Gly Cys Ser | | 1055 |
| | 1060 | 1065 |
| Ala Thr Ser Thr Phe Asn Phe His Pro Asn Val Arg Pro Val Pro Leu | | 1070 |
| | 1075 | 1080 |
| Glu Leu His Ile Gln Gly Phe Asn Ile Ser His Thr Gln Thr Arg Leu | | 1085 |
| | 1090 | 1095 |
| Leu Ser Met Ala Lys Pro Val Tyr His Ala Ile Thr Lys His Ser Pro | | 1100 |
| 1105 | 1110 | 1115 |
| Lys Lys Pro Val Ile Val Phe Val Pro Ser Arg Lys Gln Thr Arg Leu | | 1120 |
| | 1125 | 1130 |
| Thr Ala Ile Asp Ile Leu Thr Thr Cys Ala Ala Asp Ile Gln Arg Gln | | 1135 |
| | 1140 | 1145 |
| Arg Phe Leu His Cys Thr Glu Lys Asp Leu Ile Pro Tyr Leu Glu Lys | | 1150 |
| | 1155 | 1160 |
| Leu Ser Asp Ser Thr Leu Lys Glu Thr Leu Leu Asn Gly Val Gly Tyr | | 1165 |
| | 1170 | 1175 |
| Leu His Glu Gly Leu Ser Pro Met Glu Arg Arg Leu Val Glu Gln Leu | | 1180 |
| 1185 | 1190 | 1195 |
| Phe Ser Ser Gly Ala Ile Gln Val Val Val Ala Ser Arg Ser Leu Cys | | 1200 |

1205 1210 1215
 Trp Gly Met Asn Val Ala Ala His Leu Val Ile Ile Met Asp Thr Gln
 1220 1225 1230
 Tyr Tyr Asn Gly Lys Ile His Ala Tyr Val Asp Tyr Pro Ile Tyr Asp
 1235 1240 1245
 Val Leu Gln Met Val Gly His Ala Asn Arg Pro Leu Gln Asp Asp Glu
 1250 1255 1260
 Gly Arg Cys Val Ile Met Cys Gln Gly Ser Lys Lys Asp Phe Phe Lys
 1265 1270 1275 1280
 Lys Phe Leu Tyr Glu Pro Leu Pro Val Glu Ser His Leu Asp His Cys
 1285 1290 1295
 Met His Asp His Phe Asn Ala Glu Ile Val Thr Lys Thr Ile Glu Asn
 1300 1305 1310
 Lys Gln Asp Ala Val Asp Tyr Leu Thr Trp Thr Phe Leu Tyr Arg Arg
 1315 1320 1325
 Met Thr Gln Asn Pro Asn Tyr Tyr Asn Leu Gln Gly Ile Ser His Arg
 1330 1335 1340
 His Leu Ser Asp His Leu Ser Glu Leu Val Glu Gln Thr Leu Ser Asp
 1345 1350 1355 1360
 Leu Glu Gln Ser Lys Cys Ile Ser Ile Glu Asp Glu Met Asp Val Ala
 1365 1370 1375
 Pro Leu Asn Leu Gly Met Ile Ala Ala Tyr Tyr Tyr Ile Asn Tyr Thr
 1380 1385 1390
 Thr Ile Glu Leu Phe Ser Met Ser Leu Asn Ala Lys Thr Lys Val Arg
 1395 1400 1405
 Gly Leu Ile Glu Ile Ile Ser Asn Ala Ala Glu Tyr Glu Asn Ile Pro
 1410 1415 1420
 Ile Arg His His Glu Asp Asn Leu Leu Arg Gln Leu Ala Gln Lys Val
 1425 1430 1435 1440
 Pro His Lys Leu Asn Asn Pro Lys Phe Asn Asp Pro His Val Lys Thr
 1445 1450 1455
 Asn Leu Leu Leu Gln Ala His Leu Ser Arg Met Gln Leu Ser Ala Glu
 1460 1465 1470
 Leu Gln Ser Asp Thr Glu Glu Ile Leu Ser Lys Ala Ile Arg Leu Ile
 1475 1480 1485
 Gln Ala Cys Val Asp Val Leu Ser Ser Asn Gly Trp Leu Ser Pro Ala
 1490 1495 1500
 Leu Ala Ala Met Glu Leu Ala Gln Met Val Thr Gln Ala Met Trp Ser
 1505 1510 1515 1520
 Lys Asp Ser Tyr Leu Lys Gln Leu Pro His Phe Thr Ser Glu His Ile
 1525 1530 1535
 Lys Arg Cys Thr Asp Lys Gly Val Glu Ser Val Phe Asp Ile Met Glu
 1540 1545 1550
 Met Glu Asp Glu Glu Arg Asn Ala Leu Leu Gln Leu Thr Asp Ser Gln
 1555 1560 1565
 Ile Ala Asp Val Ala Arg Phe Cys Asn Arg Tyr Pro Asn Ile Glu Leu
 1570 1575 1580
 Ser Tyr Glu Val Val Asp Lys Asp Ser Ile Arg Ser Gly Gly Pro Val
 1585 1590 1595 1600
 Val Val Leu Val Gln Leu Glu Arg Glu Glu Glu Val Thr Gly Pro Val
 1605 1610 1615
 Ile Ala Pro Leu Phe Pro Gln Lys Arg Glu Glu Gly Trp Trp Val Val
 1620 1625 1630
 Ile Gly Asp Ala Lys Ser Asn Ser Leu Ile Ser Ile Lys Arg Leu Thr

1635 1640 1645
 Leu Gln Gln Lys Ala Lys Val Lys Leu Asp Phe Val Ala Pro Ala Thr
 1650 1655 1660
 Gly Ala His Asn Tyr Thr Leu Tyr Phe Met Ser Asp Ala Tyr Met Gly
 1665 1670 1675 1680
 Cys Asp Gln Glu Tyr Lys Phe Ser Val Asp Val Lys Glu Ala Glu Thr
 1685 1690 1695
 Asp Ser Asp Ser Asp
 1700

<210> 2235
 <211> 586
 <212> DNA
 <213> Homo sapiens

<400> 2235
 tctagaatga gtatgaggac actctcacca gagtgagggtg aaggtgtata cagctggcac
 60
 tcagtgtcttg cacattctcc actggcagaa tgactcccga cgtgggtcgg gctccccgga
 120
 agacacccct cgaagcagtg gtgcctctag catcttcgac ctgaggaacc tggcagctga
 180
 ctcatgtgtg ccctctctgc tagagcgggc ggccccagaa gatgtggacc ggcgcaatga
 240
 agcccttcga cggcagcacc ggcccccggc cctgtctccc ctctaccggy cacctgacga
 300
 ggatgaagcc ggggaacgct gtagccgctt agagccaccc ccgcgagcac tttggacaaa
 360
 ggatcttggt caagtgtctg tcgctcaagt tcgagattga aattgagccc atctttggga
 420
 tcttggtctt gtatgatgtg cggaagaaaa agaagatctc ggaaaacttc tacttcgacc
 480
 tgaactcgga ctccatgaag gggctgcttc gggctcatgg caccaccct gccatctcca
 540
 ccctggcccg ctctgccatc ttctctgtga cctacccttc acgcgt
 586

<210> 2236
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 2236
 Met Ser Pro Lys Gln Pro Leu His Gly Val Arg Val Gln Val Glu Val
 1 5 10 15
 Glu Val Phe Arg Asp Leu Leu Phe Leu Pro His Ile Ile Gln Ser Gln
 20 25 30
 Asp Pro Lys Asp Gly Leu Asn Phe Asn Leu Glu Leu Glu Arg Gln Thr
 35 40 45
 Leu Asp Gln Asp Pro Leu Ser Lys Val Leu Ala Gly Val Ala Leu Gly
 50 55 60
 Gly Tyr Ser Val Pro Arg Leu His Pro Arg Gln Val Pro Gly Arg Gly
 65 70 75 80
 Glu Ala Gly Pro Gly Ala Gly Ala Ala Val Glu Gly Leu His Cys Ala

85 90 95
 Gly Pro His Leu Leu Gly Pro Pro Ala Leu Ala Glu Arg Ala Thr Met
 100 105 110
 Ser Gln Leu Pro Gly Ser Ser Gly Arg Arg Cys
 115 120

<210> 2237
 <211> 421
 <212> DNA
 <213> Homo sapiens

<400> 2237
 cctaggaagg cacacctgtg tcccactgca gccaaagagga agcaccccaa acactcctct
 60
 tggggcgag gagtgctggc cagcttgggg atagtccttg gaagtggctg ggagcactga
 120
 gggaggagct gaggtccaag cctcctcca gtgcatcacc ctggtcagga gtggggcagt
 180
 gtggagccag gggctcttca gccagcacct gctgcactat gggctccagc tgtgcaagac
 240
 caccgtgag aaggagtctt gttgggagca ggggtgggaa gcactgtggg agaggtgtcc
 300
 ttggctcggg tagcagggac cttgatgtat cttgaagcca gggggccgac tgaggcgctt
 360
 gtctgaaggc ctccatgaga gggagggggc tggagggggc tgttcccaat aatagctcta
 420
 t
 421

<210> 2238
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 2238
 Met Glu Ala Phe Arg Gln Ala Pro Gln Ser Ala Pro Trp Leu Gln Asp
 1 5 10 15
 Thr Ser Arg Ser Leu Leu Pro Glu Pro Arg Thr Pro Leu Pro Gln Cys
 20 25 30
 Phe Pro Thr Leu Leu Pro Thr Arg Leu Leu Leu Thr Gly Gly Leu Ala
 35 40 45
 Gln Leu Glu Pro Ile Val Gln Gln Val Leu Ala Glu Glu Pro Leu Ala
 50 55 60
 Pro His Cys Pro Thr Pro Asp Gln Gly Asp Ala Leu Glu Glu Gly Leu
 65 70 75 80
 Asp Leu Ser Ser Ser Leu Ser Ala Pro Asp His Phe Gln Gly Leu Ser
 85 90 95
 Pro Ser Trp Pro Ala Leu Leu Arg Pro Lys Arg Ser Val Trp Gly Ala
 100 105 110
 Ser Ser Trp Leu Gln Trp Asp Thr Gly Val Pro Ser
 115 120

<210> 2239
 <211> 623

<212> DNA

<213> Homo sapiens

<400> 2239

gctagcagga ctcagaaatc tgctgttgag cacaaagcca aaaaatctct gtcccatcct
 60
 agccattcca ggctgggcc catggtcacc ccacacaata aggctaagag tccaggtgtc
 120
 aggcagccag gcagcagctc tagctcagcc cctgggcagc ccagcacagg ggttgctcga
 180
 cccacagtta gttctggccc tgtgcctagg cgccagaatg gcagctccag ctcaggacct
 240
 gagegatcaa tcagtgggtc caagaagcca accaatgact caaatccctc taggcggaca
 300
 gtcagtggta catgtggccc tggacaacct gcaagcagct caggtggccc tgggcgaccc
 360
 atcagtgggt cagttagttc tgcaagacct ttgggcagct ctcgtggccc tggccggcct
 420
 gtgagcagtc cacatgaact tcgacgacca gtgagtggct tgggcccccc ggggcggtct
 480
 gtcagtggcc ctgggagatc cataagtggc ccaattccag ctggacggac tgtcagtaat
 540
 tcagtcccag gaagaccagt gagcagcttg ggacctgggc aaacagttag tagctcaggt
 600
 cccactataa agcctaagtg cac
 623

<210> 2240

<211> 207

<212> PRT

<213> Homo sapiens

<400> 2240

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Arg | Thr | Gln | Lys | Ser | Ala | Val | Glu | His | Lys | Ala | Lys | Lys | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ser | His | Pro | Ser | His | Ser | Arg | Pro | Gly | Pro | Met | Val | Thr | Pro | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Lys | Ala | Lys | Ser | Pro | Gly | Val | Arg | Gln | Pro | Gly | Ser | Ser | Ser | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Ala | Pro | Gly | Gln | Pro | Ser | Thr | Gly | Val | Ala | Arg | Pro | Thr | Val | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Gly | Pro | Val | Pro | Arg | Arg | Gln | Asn | Gly | Ser | Ser | Ser | Ser | Gly | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Glu | Arg | Ser | Ile | Ser | Gly | Ser | Lys | Lys | Pro | Thr | Asn | Asp | Ser | Asn | Pro |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Arg | Arg | Thr | Val | Ser | Gly | Thr | Cys | Gly | Pro | Gly | Gln | Pro | Ala | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Ser | Gly | Pro | Gly | Arg | Pro | Ile | Ser | Gly | Ser | Val | Ser | Ser | Ser | Ala |
| | | 115 | | | | 120 | | | | | 125 | | | | |
| Arg | Pro | Leu | Gly | Ser | Ser | Arg | Gly | Pro | Gly | Arg | Pro | Val | Ser | Ser | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Glu | Leu | Arg | Arg | Pro | Val | Ser | Gly | Leu | Gly | Pro | Pro | Gly | Arg | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Val | Ser | Gly | Pro | Gly | Arg | Ser | Ile | Ser | Gly | Pro | Ile | Pro | Ala | Gly | Arg |


```

      100      105      110
Gly Leu Val Val Gly Pro Lys Gly Ala Thr Ile Lys Arg Ile Gln Gln
      115      120      125
Gln Thr Asn Thr Tyr Ile Ile Thr Pro Ser Arg Asp Arg Asp Pro Val
      130      135      140
Phe Glu Ile Thr Gly Ala Pro Gly Asn Val Glu Arg Ala Arg Glu Glu
      145      150      155      160
Ile Glu Thr His Ile Ala Val Arg Thr Gly Lys Ile Leu Glu Tyr Asn
      165      170      175
Asn Glu Asn Asp Phe Leu Ala Gly Ser Pro Asp Ala Ala Ile Asp Ser
      180      185      190
Arg Tyr Ser Asp Ala Trp Arg Val His Gln Pro Gly Cys Lys Pro Leu
      195      200      205
Ser Thr Phe Arg Gln Asn Ser Leu Gly Cys
      210      215

```

<210> 2243
 <211> 384
 <212> DNA
 <213> Homo sapiens

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<400> 2243
gaattcagca tttaaagtc actcggtggc atgcaatttg ctgtcatgaa aacgactgtg
60
gattcatttc ctggaagaa tcttctgact tattgagctg catgtcagaa gcaaaaagca
120
aaaaaaccaa atatgtacat aaaacagtgt tatcattcct taaaagagaa ggaaaataaa
180
tccctaaata atgtggactg gaacacagaa atccaaggct ggccgcacgg gtcctggctg
240
ggatggcatc cggggagctg ctgctgggga cgtgcttgcc ggcacaggtc aggggagccg
300
ggttctgect cctccttgcc cactctcttt gcgcctccc tgtgctcgcc tgtcttgttt
360
tacctcccat cctgggacct tgga
384

```

<210> 2244
 <211> 108
 <212> PRT
 <213> Homo sapiens

```

<400> 2244
Met Gly Gly Lys Thr Arg Gln Ala Ser Thr Gly Arg Ala Gln Arg Glu
1      5      10      15
Trp Ala Arg Arg Arg Gln Asn Pro Ala Pro Leu Thr Cys Ala Gly Lys
      20      25      30
His Val Pro Ser Ser Ser Ser Pro Asp Ala Ile Pro Ala Arg Thr Arg
      35      40      45
Ala Ala Ser Leu Gly Phe Leu Cys Ser Ser Pro His Tyr Leu Gly Ile
      50      55      60
Tyr Phe Pro Ser Leu Leu Arg Asn Asp Asn Thr Val Leu Cys Thr Tyr
      65      70      75      80
Leu Val Phe Leu Leu Phe Ala Ser Asp Met Gln Leu Asn Lys Ser Glu

```

85 90 95
 Asp Ser Tyr Gln Glu Met Asn Pro Gln Ser Phe Ser
 100 105

<210> 2245
 <211> 632
 <212> DNA
 <213> Homo sapiens

<400> 2245
 acgcgtgcga ttaccgtcaa ggctgggtgtg gtgagcgctg atctgcacga gcggacgtct
 60
 tcgagagaag aggtcggacg cgagaggctc aactatggtc acaccttggc ccacgctatt
 120
 gaggcccaca agcatttcac gtggcgctcat ggcgaggctg acgcggtggg catggtgttt
 180
 gcggccgaac tgctgcaccg gtacctggga ctgtccgatg aggtcgttgc gcgcaccgcg
 240
 actatcctgt ctgagatcgg attgcctgtt acctgtgacg agattaagtg ggcagatctg
 300
 cgcaagacga tgaacgtgga caagaaaacc agggtagacc cgcagaccgg gcgtcaagtg
 360
 ttgcggtttg tcggtattca caaaccgggt caggctcgcca tgatcgtcga ccctgacgag
 420
 gccgcttttag ccgagtgtca cgaccggtgt tccgcacggt aaaaacgttc ggaaatgaac
 480
 atgtggctgc gggtcagtcg gcattcaggc ctccgtgacg ccgtcgaccc caagtgatgt
 540
 gacgattcgg gaaatatctt gttgggcact cttgagcctc gcctgattcc ccataccga
 600
 cttaagttca gtatcgacgg catgaatccg ga
 632

<210> 2246
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 2246
 Thr Arg Ala Ile Thr Val Lys Ala Gly Val Val Ser Ala Asp Leu His
 1 5 10 15
 Glu Arg Thr Ser Ser Arg Glu Glu Val Gly Arg Glu Arg Leu Asn Tyr
 20 25 30
 Gly His Thr Leu Ala His Ala Ile Glu Ala His Lys His Phe Thr Trp
 35 40 45
 Arg His Gly Glu Ala Asp Ala Val Gly Met Val Phe Ala Ala Glu Leu
 50 55 60
 Ser His Arg Tyr Leu Gly Leu Ser Asp Glu Val Val Ala Arg Thr Arg
 65 70 75 80
 Thr Ile Leu Ser Glu Ile Gly Leu Pro Val Thr Cys Asp Glu Ile Lys
 85 90 95
 Trp Ala Asp Leu Arg Lys Thr Met Asn Val Asp Lys Lys Thr Arg Val
 100 105 110
 Asp Pro Gln Thr Gly Arg Gln Val Leu Arg Phe Val Gly Ile His Lys


```
<210> 2247
<211> 324
<212> DNA
<213> Homo sapiens
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<210> 2248
<211> 105
<212> PRT
<213> Homo sapiens
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```
<210> 2249
<211> 394
<212> DNA
<213> Homo sapiens
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1653

cccgcaaggg aaagtgagaa agcaattaag ttgggaaccg cgggggttttc ccattcccac
 120
 ggtggaaacc gcggccagtg aattgaaatc cgcttcctta aggcgaaatg ggcccttaaa
 180
 aggcaaggtc aaccgcccgc cagtgtgatg gaatttgcaa gaattcggtt tagcaccctc
 240
 ccggcttttc tcccgaccgc gtgcaggggtg ggctgcgctg ggctggggag gaactgggag
 300
 ctgggggctc atgtcctgta taaaggggct gcaggggcgc tgtctcccc cagaagactg
 360
 gccacatggg gacaggcctc ctgggggcag atct
 394

<210> 2250
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 2250
 Met Ser Pro Gln Leu Pro Val Pro Pro Arg Pro Ser Ala Ala His Pro
 1 5 10 15
 Ala Arg Gly Arg Glu Lys Ser Arg Glu Gly Ala Lys Pro Asn Ser Cys
 20 25 30
 Lys Phe His His Thr Gly Gly Arg Leu Thr Leu Pro Phe Lys Gly Pro
 35 40 45
 Phe Arg Leu Lys Glu Ala Asp Phe Asn Ser Leu Ala Ala Val Ser Thr
 50 55 60
 Val Gly Met Gly Lys Pro Arg Gly Ser Gln Leu Asn Cys Phe Leu Thr
 65 70 75 80
 Phe Pro Cys Gly Leu Ser Trp Leu Leu Leu Pro Glu Leu Arg Gly Leu
 85 90 95
 Tyr Thr Pro Cys Tyr Pro Val Phe
 100

<210> 2251
 <211> 654
 <212> DNA
 <213> Homo sapiens

<400> 2251
 acgctacttt attcgccacc atgattatga ccagtgtttc cagtccgttc agttgttgca
 60
 gtggaatagt cagggttaaatt ttaatgtgac cgtttatcgc aatctgccga ccaactcgca
 120
 ttcaatcatg acttcgtgat aaaagattga gtgtgagggtt ataacgccga agcggtaaaa
 180
 attttaattt ttgccgtga ggggttgacc aagcgaagcg cggtaggttt tctgcttagg
 240
 agtttaatca tgtttcagac ttttatttct cgccataatt caaacttttt ttctgataag
 300
 ctggttctca cttctgttac tccagcttct tcggcacctg ttttacagac acctaaagct
 360
 acatcgtcaa cgttatatatt tgatagtttg acggttaatg ctggtaatgg tggttttctt
 420

cattgcattc agatggatac atctgtcaac gccgctaatac aggttggttc tgttggtgct
 480
 gatattgctt ttgatgccga ccctaaattt tttgcctggt tggttcgctt tgagtcttct
 540
 tcggttccga ctacctccc gactgcctat gatgtttatc ctttggatgg tcgccatgat
 600
 ggtggttatt ataccgtcaa ggactgtgtg actattgacg tccttcctcg tacg
 654

<210> 2252

<211> 135

<212> PRT

<213> Homo sapiens

<400> 2252

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Phe | Gln | Thr | Phe | Ile | Ser | Arg | His | Asn | Ser | Asn | Phe | Phe | Ser | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Leu | Val | Leu | Thr | Ser | Val | Thr | Pro | Ala | Ser | Ser | Ala | Pro | Val | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Thr | Pro | Lys | Ala | Thr | Ser | Ser | Thr | Leu | Tyr | Phe | Asp | Ser | Leu | Thr |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Val | Asn | Ala | Gly | Asn | Gly | Gly | Phe | Leu | His | Cys | Ile | Gln | Met | Asp | Thr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ser | Val | Asn | Ala | Ala | Asn | Gln | Val | Val | Ser | Val | Gly | Ala | Asp | Ile | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Phe | Asp | Ala | Asp | Pro | Lys | Phe | Phe | Ala | Cys | Leu | Val | Arg | Phe | Glu | Ser |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ser | Ser | Val | Pro | Thr | Thr | Leu | Pro | Thr | Ala | Tyr | Asp | Val | Tyr | Pro | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Gly | Arg | His | Asp | Gly | Gly | Tyr | Tyr | Thr | Val | Lys | Asp | Cys | Val | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Asp | Val | Leu | Pro | Arg | Thr | | | | | | | | | |
| | | 130 | | | | 135 | | | | | | | | | |

<210> 2253

<211> 327

<212> DNA

<213> Homo sapiens

<400> 2253

ggatcctgct gggcctcttt tacgtgatgt tgaccagcc gctggtgcgc attattcgcg
 60
 cactgagcac cagcaagcag gcccgctgg attgccacc gggtcacgaa aacgatgaaa
 120
 tcggcgtatt ggtcaacgtc gcccaaccagc aattcgacaa tatggaaacc gaaatcgagc
 180
 agcgccgcca cgccgaggac cgctcaccg aatacctggg ccaactggaa gatatcgtct
 240
 ccgcacgcac cctggagctc aaggccagca accaacgctt gagccaatcc aacgatgagc
 300
 tggaagcggc aaagttgacc gccttgg
 327

<210> 2254

<211> 100
 <212> PRT
 <213> Homo sapiens

<400> 2254
 Met Leu Thr Gln Pro Leu Val Arg Ile Ile Arg Ala Leu Ser Thr Ser
 1 5 10 15
 Lys Gln Ala Arg Leu Asp Cys Pro Pro Gly His Glu Asn Asp Glu Ile
 20 25 30
 Gly Val Leu Val Asn Val Ala Asn Gln Gln Phe Asp Asn Met Glu Thr
 35 40 45
 Glu Ile Glu Gln Arg Arg His Ala Glu Asp Arg Leu Thr Glu Tyr Leu
 50 55 60
 Gly Gln Leu Glu Asp Ile Val Ser Ala Arg Thr Leu Glu Leu Lys Ala
 65 70 75 80
 Ser Asn Gln Arg Leu Ser Gln Ser Asn Asp Glu Leu Glu Ala Ala Lys
 85 90 95
 Leu Thr Ala Leu
 100

<210> 2255
 <211> 357
 <212> DNA
 <213> Homo sapiens

<400> 2255
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 60
 aatatggctc atgcaacttc tggccaaagg ggtcacattg agcgtgctgc tatcaatgct
 120
 cctgtacagg gcagtgcagc tgatgttgct atgtgtgcaa tgcttgagat agacaggaat
 180
 actcgtctta aggagcttgg ttggacgcta ctcttgagg tgcatgatga agtgatactg
 240
 gaagggcctt cagagtctgc ggagtnggcc aagtccatag ttgttgagtg catgtctaag
 300
 cccttctatg gcaccaatat cctgagggtc gaccttgctg ttgatgcca gtgtgca
 357

<210> 2256
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 2256
 Xaa Leu Ala His Glu Lys Cys Glu Val Tyr Thr Leu Leu Gly Arg Ser
 1 5 10 15
 Arg Arg Phe Pro Asn Met Ala His Ala Thr Ser Gly Gln Arg Gly His
 20 25 30
 Ile Glu Arg Ala Ala Ile Asn Ala Pro Val Gln Gly Ser Ala Ala Asp
 35 40 45
 Val Ala Met Cys Ala Met Leu Glu Ile Asp Arg Asn Thr Arg Leu Lys
 50 55 60
 Glu Leu Gly Trp Thr Leu Leu Leu Gln Val His Asp Glu Val Ile Leu

1657

```

      85              90              95
Leu Thr Asp Gly Thr Thr Val Gly Asn Asp Asp Asp Gly Leu Asn Gln
      100              105              110
Gln Ile Pro Arg Lys Glu Asn Glu Glu His Asp Arg Pro Ala Asp Lys
      115              120              125
Thr Ala Asn Glu Lys Asn Lys Val Lys Asn Gln Ile Tyr Pro Glu Ala
      130              135              140
Asp Phe Ala Asp Ser Met Glu Pro Ser Glu Ile Ala Ser Glu Asp Cys
      145              150              155              160
Glu Leu Ser His Ser Val Tyr Glu Asn Phe Met Leu Leu Ile Glu Gln
      165              170              175
Leu Arg Met Glu Tyr Lys Gly Arg Thr Thr Ala
      180              185

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<210> 2259
 <211> 425
 <212> DNA
 <213> Homo sapiens

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<400> 2259
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taaaggtaaa cacttacgtg taacacgttc atcaaagaat tcaggaacca catattctgg
120
acggatcatc acgactgtaa cagcacagcc aataaacaat agcaaatacag taatagctcg
180
gctaacaatga cctgcaccta atacgagaac tgacggatca ttttctacag gttgtacgaa
240
acactccatt tcgcctacca tgcatagaga attcagcttt gctttatcta cagtaaattcc
300
ttcaatagga gttccgtata gaacccttcc atcttcagca taaatagtct tatccccttg
360
acgaggaccg gatagaacgg taaccattac ggtagcttca gtaacctgta gacgattttt
420
catga
425

```

<210> 2260
 <211> 141
 <212> PRT
 <213> Homo sapiens

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<400> 2260
Met Lys Asn Arg Leu Gln Val Thr Glu Ala Thr Val Met Val Thr Val
1      5      10      15
Leu Ser Gly Pro Arg Gln Gly Asp Lys Thr Ile Tyr Ala Glu Asp Gly
20     25     30
Arg Val Leu Tyr Gly Thr Pro Ile Glu Gly Phe Thr Val Asp Lys Ala
35     40     45
Lys Leu Asn Ser Leu Cys Met Val Gly Glu Met Glu Cys Phe Val Gln
50     55     60
Pro Val Glu Asn Asp Pro Ser Val Leu Val Leu Gly Ala Gly His Val
65     70     75     80
Ser Arg Ala Ile Thr Asp Leu Leu Leu Phe Ile Gly Cys Arg Val Thr

```

1659

85 90 95
 Gly Leu Tyr Ile Leu Val Gly Ala Leu Gly Leu Pro Val Phe Ser Gly
 100 105 110
 Gly Ser Ser Gly Ile Gly Val Leu Val Gly Pro Thr Gly Gly Tyr Leu
 115 120 125
 Trp Gly Trp Leu Ile Gly Ala Phe Val Ala Gly
 130 135

<210> 2263
 <211> 491
 <212> DNA
 <213> Homo sapiens

<400> 2263
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 60
 tcccaccgcg gtatggctgg gtcactgctg acagatggcg tccccctgct gatctttccg
 120
 gagggcaccc ggtctcgcac cggcgcaatg ggcaccttca aacctggggc tgccgcattg
 180
 gctatttcac gtgggggttcc gggtatcccg attgcttttag taggagcatg ggcggctatg
 240
 ccgtccgagc aagccagggt accaaaagga cgtccattgg tccacgtggc tattggacac
 300
 cctatggacc ctgttcccgg cgagatcgcc caccaattct ccgaacggat tcgtcgccag
 360
 gtcattgagt tgcacgacca aaccgcccgc gcctacggca tgccaaccct tgacgaatac
 420
 ggacgccacc gcgcgctaag ccaggcctcc gagagcggcg acaccgcatc caccaaccac
 480
 tcgacgtgca c
 491

<210> 2264
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 2264
 Xaa Ala Phe Pro Val Asp Arg Gly Lys Gly Lys Ser Lys Gln Gly Ala
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 Arg Ser Pro Arg Ser His Arg Gly Met Ala Gly Ser Leu Leu Thr Asp
 20 25 30
 Gly Val Pro Leu Leu Ile Phe Pro Glu Gly Thr Arg Ser Arg Thr Gly
 35 40 45
 Ala Met Gly Thr Phe Lys Pro Gly Ala Ala Ala Leu Ala Ile Ser Arg
 50 55 60
 Gly Val Pro Val Ile Pro Ile Ala Leu Val Gly Ala Trp Ala Ala Met
 65 70 75 80
 Pro Ser Glu Gln Ala Arg Leu Pro Lys Gly Arg Pro Leu Val His Val
 85 90 95
 Ala Ile Gly His Pro Met Asp Pro Val Pro Gly Glu Ile Ala His Gln
 100 105 110
 Phe Ser Glu Arg Ile Arg Arg Gln Val Ile Glu Leu His Asp Gln Thr

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| | 115 | | 120 | | 125 | |
| Ala | Arg | Ala | Tyr | Gly | Met | Pro |
| | | | | | | Thr |
| | | | | | | Leu |
| | | | | | | Asp |
| | | | | | | Glu |
| | | | | | | Tyr |
| | | | | | | Gly |
| | | | | | | Arg |
| | | | | | | His |
| | | | | | | Arg |
| | 130 | | | | 135 | |
| | | | | | | 140 |
| Ala | Leu | Ser | Gln | Ala | Ser | Glu |
| | | | | | | Ser |
| | | | | | | Gly |
| | | | | | | Asp |
| | | | | | | Thr |
| | | | | | | Ala |
| | | | | | | Ser |
| | | | | | | Thr |
| | | | | | | Asn |
| | | | | | | His |
| | 145 | | | | 150 | |
| | | | | | | 155 |
| | | | | | | 160 |
| Ser | Thr | Cys | | | | |

<210> 2265
 <211> 328
 <212> DNA
 <213> Homo sapiens

<400> 2265
 ccattgggaat aggcacaacac ggatggatct actgtataac ttgcctgccca tcaggaaaga
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 gtcaacacgg cagacacatg ctggcagaaa ccctgctgga gttgcccttg agcattgatg
 120
 cataccaccc gagaggagga gaggggtggtg ggagaaatca gatcagagtt caaaatgcac
 180
 cggaagggtc cggaaatgta agactgcacc ttgcaggaac tgtcaatgcc actaccaata
 240
 tcactcactt acgtcaagca cttgagagca gctgcgaaca caattctctg actcctaacc
 300
 tttagcacgt gactgggacc actggaca
 328

<210> 2266
 <211> 100
 <212> PRT
 <213> Homo sapiens

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Ile | Gly | Gln | His | Gly | Trp | Ile | Tyr | Cys | Ile | Thr | Cys | Leu | Pro |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Gly | Lys | Ser | Gln | His | Gly | Arg | His | Met | Leu | Ala | Glu | Thr | Leu | Leu |
| | | | | 20 | | | | 25 | | | | | | 30 | |
| Glu | Leu | Pro | Leu | Ser | Ile | Asp | Ala | Tyr | His | Pro | Arg | Gly | Gly | Glu | Gly |
| | | | | 35 | | | 40 | | | | | | 45 | | |
| Gly | Gly | Arg | Asn | Gln | Ile | Arg | Val | Gln | Asn | Ala | Pro | Glu | Gly | Leu | Gly |
| | | | | 50 | | | 55 | | | | 60 | | | | |
| Asn | Val | Arg | Leu | His | Leu | Ala | Gly | Thr | Val | Asn | Ala | Thr | Thr | Asn | Ile |
| | | | | 65 | | | 70 | | | 75 | | | | 80 | |
| Thr | His | Leu | Arg | Gln | Ala | Leu | Glu | Ser | Ser | Cys | Glu | His | Asn | Ser | Leu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Thr | Pro | Asn | Leu | | | | | | | | | | | | |
| | | | | 100 | | | | | | | | | | | |

<210> 2267
 <211> 370
 <212> DNA
 <213> Homo sapiens

<400> 2267

agatctatgc aggtagcgct ggtctccggg gggtaagttg tccactccct gtcagatggc
 60
 agaccatgga gggctaatagc aggctgggaa ggctaggcag agttcccaga aacagggtcac
 120
 cgagggagcc accactgaat tgcactctcg ctggggagtt aagccatata cccctaagac
 180
 agcagtgacc ggagtggcca atctgtacag ggacaggctc aaggccacag caactcaggg
 240
 gacagagatg gtgaagcagg catgtcctaa agcctccctt cttaaccctg accttgaagg
 300
 acaggaaaca agtcatttac gtatgttgta ggcctagagc aagggtattgc agagatgggc
 360
 gtcaacgcgt
 370

<210> 2268

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2268

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Asp | His | Gly | Gly | Leu | Met | Gln | Ala | Gly | Lys | Ala | Arg | Gln | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Gln | Lys | Gln | Val | Thr | Glu | Gly | Ala | Thr | Thr | Glu | Leu | His | Ser | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Gly | Val | Lys | Pro | Tyr | Pro | Pro | Lys | Thr | Ala | Val | Thr | Gly | Val | Ala |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Asn | Leu | Tyr | Arg | Asp | Arg | Leu | Lys | Ala | Thr | Ala | Thr | Gln | Gly | Thr | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Val | Lys | Gln | Ala | Cys | Pro | Lys | Ala | Ser | Leu | Leu | Asn | Pro | Asp | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Glu | Gly | Gln | Glu | Thr | Ser | His | Leu | Arg | Met | Leu | | | | | |
| | | | | 85 | | | | | | 90 | | | | | |

<210> 2269

<211> 507

<212> DNA

<213> Homo sapiens

<400> 2269

ctctccgacc gcgtcaaccc cggaatatc cgcaagttcg acgaccagat cgaatcgatt
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 tgtaaggctg ccaccgagca cggtacgagc atccgaatcg gcgtgaatgc tgggtctctc
 120
 gacaaaacytc tgcttgacaa atacggagcc ccgaccgccg aggctatggt ggagtccgca
 180
 ctgtgggagg ccagcctctt tgagcaatac ggattccggg atttcaaaat ctcggtgaag
 240
 caccacgacc cggtcgtcat gatccgtgcc tatgaacagc tcgccgccaa atgcgattat
 300
 ccccttcatt tgggcgttac tgaggctggt ccggccttcc aaggcaccat caagtcggcg
 360
 gtggccttcg ggcattctct tgccgagggt atcggcgata ccatacgcgt ctccttgctc
 420

gctgatccgg tcgaggaagt caaggtgggt atcaagatcc tggagtcgct caacctacgt
 480
 cctcgaggtc tagagatcgt ctctctgc
 507

<210> 2270
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 2270
 Leu Ser Asp Arg Val Asn Pro Gly Asn Ile Arg Lys Phe Asp Asp Gln
 1 5 10 15
 Ile Glu Ser Ile Cys Lys Ala Ala Thr Glu His Gly Thr Ser Ile Arg
 20 25 30
 Ile Gly Val Asn Ala Gly Ser Leu Asp Lys Arg Leu Leu Asp Lys Tyr
 35 40 45
 Gly Ala Pro Thr Ala Glu Ala Met Val Glu Ser Ala Leu Trp Glu Ala
 50 55 60
 Ser Leu Phe Glu Gln Tyr Gly Phe Arg Asp Phe Lys Ile Ser Val Lys
 65 70 75 80
 His His Asp Pro Val Val Met Ile Arg Ala Tyr Glu Gln Leu Ala Ala
 85 90 95
 Lys Cys Asp Tyr Pro Leu His Leu Gly Val Thr Glu Ala Gly Pro Ala
 100 105 110
 Phe Gln Gly Thr Ile Lys Ser Ala Val Ala Phe Gly His Leu Leu Ala
 115 120 125
 Glu Gly Ile Gly Asp Thr Ile Arg Val Ser Leu Ser Ala Asp Pro Val
 130 135 140
 Glu Glu Val Lys Val Gly Ile Lys Ile Leu Glu Ser Leu Asn Leu Arg
 145 150 155 160
 Pro Arg Gly Leu Ile Val Ser Cys
 165

<210> 2271
 <211> 573
 <212> DNA
 <213> Homo sapiens

<400> 2271
 nncgccgacc cggacttcca ggagatgtta cgtgcgctgg tggacttcga cgaagacatc
 60
 ccgatggctcg acgaaagcct ggaacagttc gccagttgc tcaaaacccg cacctcggaa
 120
 gaaggcatgg cgccgttgac ctccggacgcg gtggcgcggt tggccactta cagcgcacgg
 180
 ctggcgggacc accaagggcg tgtgtccgcg cgcattggcg acttggtcca actgggtcagc
 240
 gaggcggact ttatccgcca cctggcgggc gacgagatga ctgatgccgg ccatatcgaa
 300
 cgggcgctca aggccaaggc cagcgtacc gggcgtgtat cggcgcggat tctcgacgac
 360
 atgctcgctg gggtcacct gatcgacacc gccgggtgcgg ccgtgggcaa atgcaacggg
 420

ctgacgggtgc tggaagtcgg cgattcggcg ttcggcgtgc cggcgcggtat ttccgccacg
 480
 gtgtaccccg gcggcagcgg cattgtcgac atcgagcgcg aagttaacct cggccagccg
 540
 atccactcca agggcgtgat gatccttacc ggt
 573

<210> 2272
 <211> 191
 <212> PRT
 <213> Homo sapiens

<400> 2272
 Xaa Ala Asp Pro Asp Phe Gln Glu Met Leu Arg Ala Leu Val Asp Phe
 1 5 10 15
 Asp Glu Asp Ile Pro Met Val Asp Glu Ser Leu Glu Gln Phe Ala Gln
 20 25 30
 Leu Leu Lys Thr Arg Thr Ser Glu Glu Gly Met Ala Pro Leu Thr Ser
 35 40 45
 Asp Ala Val Ala Arg Leu Ala Thr Tyr Ser Ala Arg Leu Ala Asp His
 50 55 60
 Gln Gly Arg Val Ser Ala Arg Ile Gly Asp Leu Phe Gln Leu Val Ser
 65 70 75 80
 Glu Ala Asp Phe Ile Arg His Leu Ala Gly Asp Glu Met Thr Asp Ala
 85 90 95
 Gly His Ile Glu Arg Ala Leu Lys Ala Lys Ala Thr Arg Thr Gly Arg
 100 105 110
 Val Ser Ala Arg Ile Leu Asp Asp Met Leu Ala Gly Val Ile Leu Ile
 115 120 125
 Asp Thr Ala Gly Ala Ala Val Gly Lys Cys Asn Gly Leu Thr Val Leu
 130 135 140
 Glu Val Gly Asp Ser Ala Phe Gly Val Pro Ala Arg Ile Ser Ala Thr
 145 150 155 160
 Val Tyr Pro Gly Gly Ser Gly Ile Val Asp Ile Glu Arg Glu Val Asn
 165 170 175
 Leu Gly Gln Pro Ile His Ser Lys Gly Val Met Ile Leu Thr Gly
 180 185 190

<210> 2273
 <211> 4355
 <212> DNA
 <213> Homo sapiens

<400> 2273
 tctttccagc atgcctccgg cttcttgggg gaacacagtc ccggtgggtca gaggtcctgc
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 aggggaggcc tctctctgga acgcctaccc aactccatcg cctcccgtt ccgcctgaca
 120
 gagagggagg aggaagtgat cacctgtttt gagagggcct cctggatcgc tcaggtgttc
 180
 ctgcaggaat tggagaagac cacaataac agcacgtcga ggcacttgaa aggctgtcac
 240
 ccgcttgact atgagctcac ctacttctg gaagctgcc tccagagcgc ctatgtgaaa
 300

aacctgaaga aggggaacat cgtgaagggc atgagagagc tccgggaggt gctgaggact
360
gtggagacca aagcaactca gaacttcaaa gtgatggcgg ccaagcacct ggcgggggtc
420
ctgctgcact ccctgagtgg agtgctactg gagccccctg tcccaccctc tgctgagtt
480
atgggcaagg aggagagttc tttcgccact caggccctgc ggaaacctca cctctatgaa
540
ggagacaacc tctactgccc caaggacaac atcgaggaag ccctcctgct cctcctcatc
600
agcgaatcca tggcaactcg agatgtggtg ctgagccggg tgccggagca ggaggaggac
660
cggacagtga gcttgagaa tgccgcagcc atctatgacc tctgagcat cacgttgggc
720
agaaggggac agtacgtcat gctctcggag tgcttgagc gagccatgaa gtttgcgttt
780
ggagaatttc acctttggta ccagggtggc ctctccatgg tggcttggtg gaagtcagcc
840
tacgtgtgt ccctgctgcg ggagtgtgtg aagttgcggc cctcggacc caccgtgccc
900
ctgatggcgg cgaaggctct catcggtcc ctctcgtggc tagaggaagc agagcacttt
960
gccatgatgg tgatcagcct cggagaggaa gccggggagt tctccccaa gggctacctg
1020
gctctgggtc tcacctatag cctgcaggcc accgacgcca ccctgaagtc caagcaagat
1080
gaattgcacc ggaaggcact gcagacgctg gagagggctc agcagctggc gccagtgac
1140
ccccaggta tctctatgt ctgctgcag ctggccctcg tccgacagat ctccagtgc
1200
atggagcagc tgcaggaggc cctgaaggta cgcaaggatg atgcccacgc cctccacctg
1260
ctggcactgc tcttctctgc ccagaagcac caccagcatg ccctggatgt tgtcaacatg
1320
gccatcaccg agcaccctga gaacttcaac ctgatgttca ccaagggtgaa gctggagcag
1380
gtgctgaaag gccagagga agccctcgtg acctgcagac aagtgtgag gctgtggcag
1440
acctgtaca gcttctccca gctgggaggc ctagaaaagg atggcagctt cggtaggggc
1500
ctcaccatga agaagcagag tggcatgcac ctgactttgc ctgatgccca tgatgcagac
1560
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1680
cagatctggc tgcaggctgc tgagctgttc atggagcagc agcacctcaa ggaagcaggt
1740
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<210> 2274

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2274

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| Gln | Arg | Ser | Cys | Arg | Gly | Gly | Leu | Ser | Leu | Glu | Arg | Leu | Pro | Asn | Ser |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Ile | Ala | Ser | Arg | Phe | Arg | Leu | Thr | Glu | Arg | Glu | Glu | Glu | Val | Ile | Thr |
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| Cys | Phe | Glu | Arg | Ala | Ser | Trp | Ile | Ala | Gln | Val | Phe | Leu | Gln | Glu | Leu |
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| Glu | Lys | Thr | Thr | Asn | Asn | Ser | Thr | Ser | Arg | His | Leu | Lys | Gly | Cys | His |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Pro | Leu | Asp | Tyr | Glu | Leu | Thr | Tyr | Phe | Leu | Glu | Ala | Ala | Leu | Gln | Ser |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Ala | Tyr | Val | Lys | Asn | Leu | Lys | Lys | Gly | Asn | Ile | Val | Lys | Gly | Met | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Leu | Arg | Glu | Val | Leu | Arg | Thr | Val | Glu | Thr | Lys | Ala | Thr | Gln | Asn |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Phe | Lys | Val | Met | Ala | Ala | Lys | His | Leu | Ala | Gly | Val | Leu | Leu | His | Ser |
| | | | 130 | | | | 135 | | | | 140 | | | | |
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<211> 608

<212> DNA

<213> Homo sapiens

<400> 2275

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<211> 167

<212> PRT

<213> Homo sapiens

<400> 2276

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 Gly Ile Ser Ser Thr Ile Ser Phe His Ser Arg Thr Leu Asn Leu Thr
 65 70 75 80
 Asp Val Ile Glu Glu Leu Ala Gln Ala Ser Thr Gln Thr Leu Lys Ser
 85 90 95
 Thr Ile Ala Ser Glu Thr Thr Leu Ser Ser Lys Ser His Gln Ser Thr
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 Thr Thr Arg Lys Ala Ile Ile Arg His Ser Thr Ile Pro Pro Phe Leu
 115 120 125
 Ser Ser Ser Ala Thr Leu Ile Pro Val Pro Ile Ser Pro Pro Phe Thr

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
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| 145 | 150 | 155 |
| Thr Asn Thr Val Val Lys Leu | | 160 |
| 165 | | |

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 <213> Homo sapiens

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<400> 2278
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 Cys Cys Pro Pro Trp Leu Ser Ser Pro Pro Ala Ala Cys Leu Pro Ser
 35 40 45
 Ser Leu Leu Ser Pro Tyr Pro Val Leu Pro Ser Pro Ser Cys Lys Val
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<210> 2280
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<400> 2280
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 35 40 45
 Pro Ala Val Leu Phe Ser Phe Leu His Cys Ala Phe Val Ser Phe Leu
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 Gly Thr Ser Phe Thr Pro Ala Cys Ile Ser Ser Leu Ser His Gly Ser
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<210> 2281
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<210> 2282
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 <212> PRT
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<400> 2282
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 20 25 30
 Pro Ser Glu Asp Ser Arg Gly Thr Phe Val Pro Asp Ile Leu His Gly
 35 40 45
 Asn Phe Gln Glu Gly Gly Gln Leu Ala Ser Ala Ala Pro Asp Leu Trp
 50 55 60
 Ile Asp Ala Lys Lys Pro Phe Ser Leu Lys Ala Asp Gly Glu Asn Pro
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<210> 2284
 <211> 122
 <212> PRT
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<400> 2284
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 35 40 45
 Leu Leu Cys His Leu Gly Gly Gly Cys Asn Phe Pro His His Cys Arg
 50 55 60
 Val Leu Arg Asn Arg Leu Gln Pro Cys His Arg Ser Ser Gln Leu His
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 Gln Ala Phe Gly Arg Ala Val Ile Arg Leu Pro Ala Lys Ala Gln Ala
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<212> DNA

<213> Homo sapiens

<400> 2285

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<211> 1784

<212> PRT

<213> Homo sapiens

<400> 2286

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| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Leu | Leu | Arg | Pro | Leu | Leu | Leu | Leu | Cys | Ala | Leu | Ala | Pro | Gly | Ala | |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Pro | Gly | Pro | Ala | Pro | Gly | Arg | Ala | Thr | Glu | Gly | Arg | Ala | Ala | Leu | Asp |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ile | Val | His | Pro | Val | Arg | Val | Asp | Ala | Gly | Gly | Ser | Phe | Leu | Ser | Tyr |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Glu | Leu | Trp | Pro | Arg | Ala | Leu | Arg | Lys | Arg | Asp | Val | Ser | Val | Arg | Arg |
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| Phe | Asn | Leu | Thr | Ala | Asn | Gln | His | Leu | Leu | Ala | Pro | Gly | Phe | Val | Ser |
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| Glu | Thr | Arg | Arg | Arg | Gly | Gly | Leu | Gly | Arg | Ala | His | Ile | Arg | Ala | His |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Thr | Pro | Ala | Cys | His | Leu | Leu | Glu | Glu | Val | Gln | Asp | Pro | Glu | Leu | Glu |
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| Gly | Gly | Leu | Ala | Ala | Ile | Ser | Ala | Cys | Asp | Gly | Leu | Lys | Gly | Val | Phe |
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| Gln | Leu | Ser | Asn | Glu | Asp | Tyr | Phe | Ile | Glu | Pro | Leu | Asp | Ser | Ala | Pro |
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| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Glu | Arg | Leu | Ala | Gln | Arg | Gly | Asp | Ser | Ser | Ala | Pro | Ser | Thr | Cys |

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| Ser | Ala | Ser | Val | Pro | Arg | Ala | Gly | Val | Ser | Thr | Gly | Ala | Leu | Gly | Ala |
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| Ala | Ala | Ala | Val | Ala | Ala | Ala | Thr | Ala | Arg | Arg | Leu | His | Gln | Arg | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Ser | Lys | Glu | Lys | Trp | Val | Glu | Thr | Leu | Val | Val | Ala | Asp | Ala | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Met | Val | Glu | Tyr | His | Gly | Gln | Pro | Gln | Val | Glu | Ser | Tyr | Val | Leu | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Met | Asn | Met | Val | Ala | Gly | Leu | Phe | His | Asp | Pro | Ser | Ile | Gly | Asn |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Pro | Ile | His | Ile | Thr | Ile | Val | Arg | Leu | Val | Leu | Leu | Glu | Asp | Glu | Glu |
| 290 | | | | | | 295 | | | | | 300 | | | | |
| Glu | Asp | Leu | Lys | Ile | Thr | His | His | Ala | Asp | Asn | Thr | Leu | Lys | Ser | Phe |
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| Cys | Lys | Trp | Gln | Lys | Ser | Ile | Asn | Met | Lys | Gly | Asp | Ala | His | Pro | Leu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| His | His | Asp | Thr | Ala | Ile | Leu | Leu | Thr | Arg | Lys | Asp | Leu | Cys | Ala | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Met | Asn | Arg | Pro | Cys | Glu | Thr | Leu | Gly | Leu | Ser | His | Val | Ala | Gly | Met |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Cys | Gln | Pro | His | Arg | Ser | Cys | Ser | Ile | Asn | Glu | Asp | Thr | Gly | Leu | Pro |
| 370 | | | | | | 375 | | | | | 380 | | | | |
| Leu | Ala | Phe | Thr | Val | Ala | His | Glu | Leu | Gly | His | Ser | Phe | Gly | Ile | Gln |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| His | Asp | Gly | Ser | Gly | Asn | Asp | Cys | Glu | Pro | Val | Gly | Lys | Arg | Pro | Phe |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ile | Met | Ser | Pro | Gln | Leu | Leu | Tyr | Asp | Ala | Ala | Pro | Leu | Thr | Trp | Ser |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Arg | Cys | Ser | Arg | Gln | Tyr | Ile | Thr | Arg | Phe | Leu | Asp | Arg | Gly | Trp | Gly |
| | | | 435 | | | | 440 | | | | | 445 | | | |
| Leu | Cys | Leu | Asp | Asp | Pro | Pro | Ala | Lys | Asp | Ile | Ile | Asp | Phe | Pro | Ser |
| 450 | | | | | | 455 | | | | | 460 | | | | |
| Val | Pro | Pro | Gly | Val | Leu | Tyr | Asp | Val | Ser | His | Gln | Cys | Arg | Leu | Gln |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Tyr | Gly | Ala | Tyr | Ser | Ala | Phe | Cys | Glu | Asp | Met | Asp | Asn | Val | Cys | His |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Thr | Leu | Trp | Cys | Ser | Val | Gly | Thr | Thr | Cys | His | Ser | Lys | Leu | Asp | Ala |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Ala | Val | Asp | Gly | Thr | Arg | Cys | Gly | Glu | Asn | Lys | Trp | Cys | Leu | Ser | Gly |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Glu | Cys | Val | Pro | Val | Gly | Phe | Arg | Pro | Glu | Ala | Val | Asp | Gly | Gly | Trp |
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| Ser | Gly | Trp | Ser | Ala | Trp | Ser | Ile | Cys | Ser | Arg | Ser | Cys | Gly | Met | Gly |
| 545 | | | | | 550 | | | | | 555 | | | | | |

| | | | | | | |
|---------------------|-----------------|-----------------|-------------|-----|--|-----|
| 625 | | 630 | | 635 | | 640 |
| Glu Tyr Phe Ala Lys | Lys Leu Arg Asp | Ala Val Val Asp | Gly Thr Pro | | | |
| | 645 | 650 | 655 | | | |
| Cys Tyr Gln Val Arg | Ala Ser Arg Asp | Leu Cys Ile Asn | Gly Ile Cys | | | |
| | 660 | 665 | 670 | | | |
| Lys Asn Val Gly Cys | Asp Phe Glu Ile | Asp Ser Gly Ala | Met Glu Asp | | | |
| | 675 | 680 | 685 | | | |
| Arg Cys Gly Val Cys | His Gly Asn Gly | Ser Thr Cys His | Thr Val Ser | | | |
| | 690 | 695 | 700 | | | |
| Gly Thr Phe Xaa Arg | Arg Pro Arg Val | Xaa Gly Tyr Val | Asp Val Gly | | | |
| 705 | 710 | 715 | 720 | | | |
| Leu Ile Pro Ala Gly | Ala Arg Glu Ile | Arg Ile Gln Glu | Val Ala Glu | | | |
| | 725 | 730 | 735 | | | |
| Ala Ala Asn Phe Leu | Ala Leu Arg Ser | Glu Asp Pro Glu | Lys Tyr Phe | | | |
| | 740 | 745 | 750 | | | |
| Leu Asn Gly Gly Trp | Thr Ile Gln Trp | Asn Gly Asp Tyr | Gln Val Ala | | | |
| | 755 | 760 | 765 | | | |
| Gly Thr Thr Phe Thr | Tyr Ala Arg Arg | Gly Asn Trp Glu | Asn Leu Thr | | | |
| | 770 | 775 | 780 | | | |
| Ser Pro Gly Pro Thr | Lys Glu Pro Val | Trp Ile Gln Val | Pro Ala Ser | | | |
| 785 | 790 | 795 | 800 | | | |
| Arg Gly Pro Gly Gly | Gly Ser Arg Gly | Gly Val Pro Arg | Pro Ser Thr | | | |
| | 805 | 810 | 815 | | | |
| Leu His Gly Arg Ser | Arg Pro Gly Gly | Val Ser Pro Gly | Ser Val Thr | | | |
| | 820 | 825 | 830 | | | |
| Glu Pro Gly Ser Glu | Pro Gly Pro Pro | Ala Ala Ala Ser | Thr Ser Val | | | |
| | 835 | 840 | 845 | | | |
| Ser Pro Ser Leu Lys | Trp Pro Asn Leu | Val Ala Ala Val | His Arg Gly | | | |
| | 850 | 855 | 860 | | | |
| Gly Trp Gly Gln Ala | Pro Leu Gly Leu | Gly Gly Trp Arg | Arg His Leu | | | |
| 865 | 870 | 875 | 880 | | | |
| Val Leu Met Gly Pro | Arg Leu Pro Thr | Gln Leu Leu Phe | Gln Glu Ser | | | |
| | 885 | 890 | 895 | | | |
| Asn Pro Gly Val His | Tyr Glu Tyr Thr | Ile His Arg Glu | Ala Gly Gly | | | |
| | 900 | 905 | 910 | | | |
| His Asp Glu Val Pro | Pro Pro Val Phe | Ser Trp His Tyr | Gly Pro Trp | | | |
| | 915 | 920 | 925 | | | |
| Thr Lys Cys Thr Val | Thr Cys Gly Arg | Gly Val Gln Arg | Gln Asn Val | | | |
| | 930 | 935 | 940 | | | |
| Tyr Cys Leu Glu Arg | Gln Ala Gly Pro | Val Asp Glu Glu | His Cys Asp | | | |
| 945 | 950 | 955 | 960 | | | |
| Pro Leu Gly Arg Pro | Asp Asp Gln Gln | Arg Lys Cys Ser | Glu Gln Pro | | | |
| | 965 | 970 | 975 | | | |
| Cys Pro Ala Arg Trp | Trp Ala Gly Glu | Trp Gln Leu Cys | Ser Ser Ser | | | |
| | 980 | 985 | 990 | | | |
| Cys Gly Pro Gly Gly | Leu Ser Arg Arg | Ala Val Leu Cys | Ile Arg Ser | | | |
| | 995 | 1000 | 1005 | | | |
| Val Gly Leu Asp Glu | Gln Ser Ala Leu | Glu Pro Pro Ala | Cys Glu His | | | |
| | 1010 | 1015 | 1020 | | | |
| Leu Pro Arg Pro Pro | Thr Glu Thr Pro | Cys Asn Arg His | Val Pro Cys | | | |
| 1025 | 1030 | 1035 | 1040 | | | |
| Pro Ala Thr Trp Ala | Val Gly Asn Trp | Ser Gln Cys Ser | Val Thr Cys | | | |
| | 1045 | 1050 | 1055 | | | |
| Gly Glu Gly Thr Gln | Arg Arg Asn Val | Leu Cys Thr Asn | Asp Thr Gly | | | |

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 Ala Lys Glu Glu Gly Val Leu Gly Pro Trp Ser Pro Ser Pro Trp Pro
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 1730 1735 1740
 Glu Thr Leu Arg Leu Leu Gly Arg Cys Gln Leu Pro Thr Ile Arg Thr
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<400> 2287

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 Gly Thr Gly Ser Ala Thr Ser Met Leu Leu Ser Cys Cys Ser Pro Ala
 50 55 60
 Trp Asn Val Pro Tyr Leu Ala Asn Ser Tyr Cys Ser Ser Val Thr Leu
 65 70 75 80
 Leu Asp Thr Phe Leu Pro Leu Ser Leu Val Arg Cys Ser Pro Leu Gly
 85 90 95
 Ser His Gly Pro Leu Cys Val Pro Val Val Ala Gln Gln Lys Pro Pro
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<210> 2289
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<211> 100

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| 1 | | | 5 | | | | 10 | | | | | 15 | | | |
| Lys | Phe | Ser | Gly | Tyr | Gly | Gln | Leu | Cys | Glu | Arg | Gly | Leu | Glu | Glu | Leu |
| | | 20 | | | | 25 | | | | | | 30 | | | |
| Ile | Asp | Tyr | Thr | Gly | Gly | Leu | Lys | His | Gln | Ile | Leu | Gln | Ser | His | Gly |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Gln | Asp | Ala | Glu | Leu | Ser | Gly | Thr | Leu | Ser | Leu | Val | Leu | Thr | Gln | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Lys | Arg | Ile | Xaa | Arg | Gly | Tyr | Trp | Phe | Lys | Asn | Trp | Pro | Pro | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Lys | Thr | Ser | Thr | Ala | Val | Phe | Leu | Gly | Leu | Glu | Lys | Pro | Leu | Met |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Ile | His | Phe | | | | | | | | | | | | |
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<211> 573

<212> DNA

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<210> 2292

<211> 140

<212> PRT

<213> Homo sapiens

<400> 2292

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| Met | Ser | Leu | Pro | Arg | Ala | Ala | Arg | Asp | Trp | Gln | Glu | Glu | Tyr | Leu | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Pro | Ser | Gly | Glu | Ala | His | Val | Arg | Ser | Val | Leu | Asn | Ala | Lys | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Ala | Val | Gly | Ser | Asp | Arg | Arg | Ala | Glu | Asp | Leu | Gly | Pro | Gln | Glu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Arg | Glu | Ala | Ser | Ala | Ala | Phe | Phe | Ala | Gly | Gly | His | Asp | Val | Ile |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Val | Ala | Arg | Arg | His | Tyr | Thr | Asp | Glu | Gly | Thr | Thr | Thr | Ala | Asp | Val |
| | | | | | 70 | | | | 75 | | | | | 80 | |
| Ala | Gly | Ser | Ala | Ser | Leu | Thr | Val | Asn | Glu | His | Arg | Ala | Phe | Met | Ala |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Leu | Thr | Val | Asp | Ser | Met | Ala | Gln | Leu | His | Arg | His | Asn | Glu | His | Val |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Arg | Tyr | Val | Val | Val | Phe | Gln | Asn | Trp | Leu | Lys | Pro | Ala | Gly | Ala | Ser |
| | | | 115 | | | | 120 | | | | | | 125 | | |
| Ile | Asp | His | Leu | His | Lys | Gln | Val | Val | Ala | Ile | Asp | | | | |
| | | | 130 | | | 135 | | | | | 140 | | | | |

<210> 2293

<211> 358

<212> DNA

<213> Homo sapiens

<400> 2293

acgcgtgaag gaatggaagc tgctctcgtc ggtgcacaca agactggcgg gtgcccattg
60
gtgaacactg tcgctaagaa ctggttgaac cggctcaaca cgccggatat gaaaccact
120
gaggagatca agcggcagtt ccaaggtctg cattgggttg gacgtaagta tgggctcaac
180
cacggagagt tctatcttga cgacgagcag tgggccacgc tcatggccgg gtctctcttc
240
gaggcgaatc cgcgcatata gagcaacttt gattccgagg gcgctgttgt ggatccggat
300
tccgattcac ttgctggggc tgatcgagat gcccagagtg cttcgatgc atgccttc
358

<210> 2294

<211> 115

<212> PRT

<213> Homo sapiens

<400> 2294

Met Glu Ala Ala Leu Val Gly Ala His Lys Thr Gly Gly Cys Pro Leu

```

      1             5             10             15
Val Asn Thr Val Ala Lys Asn Trp Leu Asn Arg Leu Asn Thr Pro Asp
      20             25             30
Met Lys Pro Thr Glu Glu Ile Lys Arg Gln Phe Gln Gly Leu His Trp
      35             40             45
Leu Gly Arg Lys Tyr Gly Leu Asn His Gly Glu Phe Tyr Leu Asp Asp
      50             55             60
Glu Gln Trp Ala Thr Leu Met Ala Gly Ser Ser Phe Glu Ala Asn Pro
      65             70             75             80
Arg Ile Lys Ser Asn Phe Asp Ser Glu Gly Ala Val Val Asp Pro Asp
      85             90             95
Ser Asp Ser Leu Ala Gly Ala Asp Arg Asp Ala Arg Gly Ala Ser Asp
      100             105             110
Ala Cys Leu
      115

```

<210> 2295
 <211> 546
 <212> DNA
 <213> Homo sapiens

```

<400> 2295
ggcaccgatc cgagtgggtgg tgccgggatt aggnccggatc tanaaacatt ctccgccctt
60
ggggcggtatg gctgctcgggt cattaccgca ctggtagcgc aaaatacgcg cggcggtgcag
120
tcgggtgtatc gtatcgaacc ggattttgtc ggtgcacaac tggactctgt gttcagcgat
180
gtccgcattg attccaccaa aatcggcatg ctggcagagg cggatatcgt ggaagcggtc
240
gcgagcgcc tcaaacatta tcgcgttaaa aacgtggtac ttgatacggg gatgctggcg
300
aaaagtggcg atccgctgct atctcctgct gctgtcgaaa ctctgcgaaa acaccttctg
360
ccacacgtcg cgctgatcac gccaaatttg ccggaggcgg cggcgctgct ggatgcgcct
420
catgcccgtg ccgagcacga gatgaaagag caggggcgcg cacttctggc gcttggctgc
480
gaggcagtgc tgatgaaagg cggccatctt gacgatcctg agagcccgga ctggctcttc
540
acgcgt
546

```

<210> 2296
 <211> 182
 <212> PRT
 <213> Homo sapiens

```

<400> 2296
Gly Thr Asp Pro Ser Gly Gly Ala Gly Ile Arg Xaa Asp Leu Xaa Thr
1             5             10             15
Phe Ser Ala Leu Gly Ala Tyr Gly Cys Ser Val Ile Thr Ala Leu Val
      20             25             30
Ala Gln Asn Thr Arg Gly Val Gln Ser Val Tyr Arg Ile Glu Pro Asp

```



```

      35              40              45
Phe Val Gly Ala Gln Leu Asp Ser Val Phe Ser Asp Val Arg Ile Asp
      50              55              60
Ser Thr Lys Ile Gly Met Leu Ala Glu Ala Asp Ile Val Glu Ala Val
65              70              75              80
Ala Glu Arg Leu Lys His Tyr Arg Val Lys Asn Val Val Leu Asp Thr
      85              90              95
Val Met Leu Ala Lys Ser Gly Asp Pro Leu Leu Ser Pro Ala Ala Val
      100             105             110
Glu Thr Leu Arg Lys His Leu Leu Pro His Val Ala Leu Ile Thr Pro
      115             120             125
Asn Leu Pro Glu Ala Ala Ala Leu Leu Asp Ala Pro His Ala Arg Thr
      130             135             140
Glu His Glu Met Lys Glu Gln Gly Arg Ala Leu Leu Ala Leu Gly Cys
145             150             155             160
Glu Ala Val Leu Met Lys Gly Gly His Leu Asp Asp Pro Glu Ser Pro
      165             170             175
Asp Trp Leu Phe Thr Arg
      180

```

<210> 2297

<211> 414

<212> DNA

<213> Homo sapiens

<400> 2297

```

gggaattccg ggcccttccc cccaagcccg ggtaattttt tgtattttta aaaaaaaagg
60
gaattttccc acgttggggg ggggggggttc ggactttttc ccccaaaaac ccccccccc
120
caccctccca aaggccgaaa agcaggggcca aaaccccccg gacccccccc ggggggggca
180
aaaggaaaaa cccctttttt tttttttttt ttttatacac atgaggggtct ctgggtaata
240
aatgttgaga tgtaggggta ggtgagatta aacaggttct ttttttcatg atttctcgga
300
gtctttatga tgctccacac cagtacttct caaagctgac tgtgtatata aaacactggg
360
gatctgaccc acatgtaaag tctgatttct ttgggtctggg gcaggcctga aatn
414

```

<210> 2298

<211> 67

<212> PRT

<213> Homo sapiens

<400> 2298

```

Lys Lys Arg Glu Phe Ser His Val Gly Gly Gly Gly Phe Gly Leu Phe
1              5              10              15
Pro Pro Lys Thr Pro Pro Pro His Pro Pro Lys Gly Arg Lys Ala Gly
      20              25              30
Pro Lys Pro Pro Gly Pro Pro Pro Gly Gly Ala Lys Gly Lys Thr Pro
      35              40              45
Phe Phe Phe Phe Phe Phe Tyr Thr His Glu Gly Leu Trp Leu Ile Asn

```

50
Val Glu Met
65

55

60

<210> 2299
<211> 987
<212> DNA
<213> Homo sapiens

<400> 2299
ngagatgtct aagttatctt ttttttcccg gaaggcaa at ggctggcgtg gaagcacaac
60
ccgctttcac tcttcgaatt tgtgcttagc tcttttcttg taccctgcga ctctgtacca
120
acatgctgtg atgtgtgccg agggaggaat tggtcagcta cacaacctgg atcttaccac
180
agtttgata tgactgaggc tctccaatgg gccagatata actggcgacg gctgatcaga
240
ggtgcaacca gggatgatga ttcagggcca tacaactatt cctcgttgct cgcctgtggg
300
cgcaagtcct ctcatatccc taaactgtca ggaaggcacc ggattgttgt tccccacata
360
cagcccttca aggatgagta tgagaagtgc tccggagcct atgtgaacaa tcgaatacga
420
acaacaaagt acacacttct gaattttgtg ccaagaaatt tatttgaaca atttcacaga
480
gctgccaaat tatatttctt gttcctagtt gtcctgaact gggtagccttt ggtagaagcc
540
ttccaaaagg aaatcaccat gttgcctctg gtgggtggcc ttacaattat cgcaattaaa
600
gatggcctgg aagattatcg gaaatacaaa attgacaaac agatcaataa ttttaataact
660
aaagtttata gtaggaaaga gaaaaaatac attgaccgat gctggaaaga cgttactgtt
720
ggggacttta ttcgcctctc ctgcaacgag gtcacccctg cagacatggg actactcttt
780
tccactgata cagatggaat ctgtcacatt gagacttctg gtcttgatgg agagagcaat
840
ttaaaacaga ggcaggtggg tcggggatat gcagaacagg actctgaagt tgatcctgag
900
aagttttcca gtaggataga atgtgaaagc ccaaacaatg acctcagcag attccgaggg
960
ttcttagaac attccaacaa agaacgc
987

<210> 2300
<211> 266
<212> PRT
<213> Homo sapiens

<400> 2300
Met Thr Glu Ala Leu Gln Trp Ala Arg Tyr His Trp Arg Arg Leu Ile
1 5 10 15
Arg Gly Ala Thr Arg Asp Asp Asp Ser Gly Pro Tyr Asn Tyr Ser Ser

<210> 2302

<211> 130
 <212> PRT
 <213> Homo sapiens

<400> 2302
 Tyr Pro Lys Arg Phe Lys Phe Asp Ala Asp Glu Phe Tyr Leu Lys Ser
 1 5 10 15
 Ser Glu Glu Met Xaa Ala Thr Ser Ser Ala Xaa Phe Pro Glu Ala Cys
 20 25 30
 Asp Asn Thr Met Glu Ile Ala Glu Xaa Val Ala Thr Leu Asn Ser Thr
 35 40 45
 Gln Thr Gln Xaa Tyr Met Pro Asp Phe Pro Thr Pro Glu Gly Glu Asn
 50 55 60
 Glu Glu Ser Trp Phe Val Lys Glu Val Glu Arg Gly Leu His Tyr Arg
 65 70 75 80
 Phe Pro Glu Gly Ile Pro Asp Asp Val Arg Lys Gln Ala Asp Tyr Glu
 85 90 95
 Val Gly Ile Ile Thr Gln Met Gly Phe Pro Gly Tyr Phe Leu Val Val
 100 105 110
 Ala Asp Phe Ile Asn Trp Ala Lys Asn Asn Gly Ile Arg Val Gly Pro
 115 120 125
 Gly Arg
 130

<210> 2303
 <211> 638
 <212> DNA
 <213> Homo sapiens

<400> 2303
 nnggatccag gctgcccctg tgtgtctcct tcagtcttcg ttagctgcct gctgctgtct
 60
 gcacctgtgt ttggctacct gggcgaccga catagccgca aggctaccat gagcttcggt
 120
 atcttgctgt ggtcaggagc tggcctctct agctccttca tctccccccg gtattcttgg
 180
 ctctttcttcc tgtcccgggg catcgagggc actggctcgg ccagctactc caccatcgcg
 240
 cccaccgtcc tgggcgacct ctctgtgagg gaccagcgca cccgcgtgct ggctgtcttc
 300
 tacatcttta tccccgttgg aagtgggtctg ggctacgtgc tggggtcggc tgtgacgatg
 360
 ctgactggga actggcgctg ggccctccga gtcacgccct gcctggaggc cgtggccttg
 420
 atcctgctta tcctgctggt tccagacca ccccgaggag ctgccgagac acagggggag
 480
 ggggcccgtgg gaggcttcag aagcagctgg tgtgaggacg tcagatacct ggggaaaaac
 540
 tggagttttg tgtggctcgac cctcggagtg accgccatgg cctttgtgac tggagccctg
 600
 gggttctggg cccccaagtt tctgctcgag gcacgcgt
 638

<210> 2304

<211> 212
 <212> PRT
 <213> Homo sapiens

<400> 2304
 Xaa Asp Pro Gly Cys Pro Cys Val Ser Pro Ser Val Phe Val Ser Cys
 1 5 10 15
 Leu Leu Leu Ser Ala Pro Val Phe Gly Tyr Leu Gly Asp Arg His Ser
 20 25 30
 Arg Lys Ala Thr Met Ser Phe Gly Ile Leu Leu Trp Ser Gly Ala Gly
 35 40 45
 Leu Ser Ser Ser Phe Ile Ser Pro Arg Tyr Ser Trp Leu Phe Phe Leu
 50 55 60
 Ser Arg Gly Ile Glu Gly Thr Gly Ser Ala Ser Tyr Ser Thr Ile Ala
 65 70 75 80
 Pro Thr Val Leu Gly Asp Leu Phe Val Arg Asp Gln Arg Thr Arg Val
 85 90 95
 Leu Ala Val Phe Tyr Ile Phe Ile Pro Val Gly Ser Gly Leu Gly Tyr
 100 105 110
 Val Leu Gly Ser Ala Val Thr Met Leu Thr Gly Asn Trp Arg Trp Ala
 115 120 125
 Leu Arg Val Met Pro Cys Leu Glu Ala Val Ala Leu Ile Leu Leu Ile
 130 135 140
 Leu Leu Val Pro Asp Pro Pro Arg Gly Ala Ala Glu Thr Gln Gly Glu
 145 150 155 160
 Gly Ala Val Gly Gly Phe Arg Ser Ser Trp Cys Glu Asp Val Arg Tyr
 165 170 175
 Leu Gly Lys Asn Trp Ser Phe Val Trp Ser Thr Leu Gly Val Thr Ala
 180 185 190
 Met Ala Phe Val Thr Gly Ala Leu Gly Phe Trp Ala Pro Lys Phe Leu
 195 200 205
 Leu Glu Ala Arg
 210

<210> 2305
 <211> 340
 <212> DNA
 <213> Homo sapiens

<400> 2305
 gccccgcct ctatcttccg gcatcgtcac agtcgcatcg tgacggtact ggctggagtc
 60
 tcggaccagc acactttgac cgctcgtggc gcctcgtgac atggggtaac gcgaacctcg
 120
 tcgctctcgt tcttgacctc ttccgtgccc ccattgacaa cgatcgggca agttcactgg
 180
 cccgcaacgc tattggtgac gcagcactcg cagctgggtct cgaccgactc gtccacacca
 240
 cggcgctcgt gcgcgacgag ggcgatgagt tggctcgtcgt tactcgcagc gctgctgccg
 300
 ccgcacgcaa ttccatgacg acaacgtgga gttggcgcg
 340

<210> 2306

<211> 101
 <212> PRT
 <213> Homo sapiens

<400> 2306
 Met Glu Leu Arg Ala Ala Ala Ala Leu Arg Val Thr Thr Thr Asn
 1 5 10 15
 Ser Ser Pro Ser Ser Arg Thr Asp Ala Val Val Trp Thr Ser Arg Ser
 20 25 30
 Arg Pro Ala Ala Ser Ala Ala Ser Pro Ile Ala Leu Arg Ala Ser Glu
 35 40 45
 Leu Ala Arg Ser Leu Ser Met Gly Ala Arg Lys Arg Ser Arg Thr Gly
 50 55 60
 Ala Thr Arg Phe Ala Leu Pro His Val Thr Arg Arg Pro Arg Arg Ser
 65 70 75 80
 Lys Cys Ala Gly Pro Arg Leu Gln Pro Val Pro Ser Arg Cys Asp Cys
 85 90 95
 Asp Asp Ala Gly Arg
 100

<210> 2307
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 2307
 ngcttctcag ctgaaggggg agataaaagct ctacataaga tgggtccagg tgggggcaaa
 60
 gccaaaggcac tgggtggggc tggcagtggg agcaagggct cagcaggtgg cggaagcaag
 120
 cgacggctga gcagcgaaga cagctccctg gagccagacc tggccgagat gagcctggat
 180
 gacagcagcc tggccctggg cgcagaggcc aggaccttcg ggggattccc tgagagccct
 240
 ccaccctgtc ctctccacgg tggctcccga ggcccttcca ctttccttcc tgagccccca
 300
 gatacttatg aagaagatgg tgatgagagt ggcaatgggc ttccccaaac caaagaggca
 360

<210> 2308
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 2308
 Xaa Phe Ser Ala Glu Gly Gly Asp Lys Ala Leu His Lys Met Gly Pro
 1 5 10 15
 Gly Gly Gly Lys Ala Lys Ala Leu Gly Gly Ala Gly Ser Gly Ser Lys
 20 25 30
 Gly Ser Ala Gly Gly Gly Ser Lys Arg Arg Leu Ser Ser Glu Asp Ser
 35 40 45
 Ser Leu Glu Pro Asp Leu Ala Glu Met Ser Leu Asp Asp Ser Ser Leu
 50 55 60
 Ala Leu Gly Ala Glu Ala Arg Thr Phe Gly Gly Phe Pro Glu Ser Pro

```

65          70          75          80
Pro Pro Cys Pro Leu His Gly Gly Ser Arg Gly Pro Ser Thr Phe Leu
          85          90          95
Pro Glu Pro Pro Asp Thr Tyr Glu Glu Asp Gly Asp Glu Ser Gly Asn
          100          105          110
Gly Leu Pro Lys Thr Lys Glu Ala
          115          120

```

<210> 2309
 <211> 395
 <212> DNA
 <213> Homo sapiens

```

<400> 2309
ggatccctac aaatggggcc ctgctctgag cacattccca tgagggctgc ctgccctgtg
60
cactctctgc cctggggccgc ggggcctgac tggggtccca cctcctccta cccactgggg
120
tcttttccag caggcacagg gattcctcat gggggaggca gagccccacc gtctgtcctc
180
ggtgacggcc tgagctgtgc acggcctccc ctgccctcct gttctcaggc cccccagggt
240
ccatccagcc ccagcgtgtg gcgttctggc tcttccttgg agtctcctcc cagaccagc
300
gactccactc aactgtgcc tagcggactg tgtggttgat gcagccggct cacttgagt
360
tggtgtgtta tgcccacaac aggcttgccg tcacc
395

```

<210> 2310
 <211> 108
 <212> PRT
 <213> Homo sapiens

```

<400> 2310
Met Gly Pro Cys Ser Glu His Ile Pro Met Arg Ala Ala Cys Pro Val
1          5          10          15
His Ser Leu Pro Trp Ala Ala Gly Pro Asp Trp Val Pro Thr Ser Ser
20          25          30
Tyr Pro Leu Gly Ser Phe Pro Ala Gly Thr Gly Ile Pro His Gly Gly
35          40          45
Gly Arg Ala His Pro Ser Val Leu Gly Asp Gly Leu Ser Cys Ala Arg
50          55          60
Pro Pro Leu Pro Ser Cys Ser Gln Ala Pro Gln Gly Pro Ser Ser Pro
65          70          75          80
Ser Val Trp Arg Ser Gly Ser Ser Leu Glu Ser Pro Pro Arg Pro Arg
85          90          95
Asp Ser Thr His Thr Val Pro Ser Gly Leu Cys Gly
100          105

```

<210> 2311
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 2311

gtgcacgccg agatgctgcc gcaagacaag cagcgtgtcg tcggcgagtt gaagcgccag
60
ggcttctcag tgatcaaggt cggcgatggc atcaatgatt gcgacgctct cgccgcggcg
120
gatgtcggca gtcccatggg cggcagcgcg gacgtggctc tcgaaacggc cgatgctgcc
180
gtccttcacg gacgggtggg ggacgtcttc gcgatgatcg ccctatcgaa gcgaaccatg
240
gccaacattc gacagaacat cgcgatcgcg atcggggctaa aggcgggtgtt ccttgtaacg
300
accgtcgtcg gcatcacggg gctttggcct gcaatcctcg ccgatacggg gaccacggag
360
cttgtgacca tgaacgcg
378

<210> 2312

<211> 126

<212> PRT

<213> Homo sapiens

<400> 2312

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | His | Ala | Glu | Met | Leu | Pro | Gln | Asp | Lys | Gln | Arg | Val | Val | Gly | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Lys | Arg | Gln | Gly | Phe | Ser | Val | Ile | Lys | Val | Gly | Asp | Gly | Ile | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Cys | Asp | Ala | Leu | Ala | Ala | Ala | Asp | Val | Gly | Ser | Pro | Met | Gly | Gly |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Ser | Ala | Asp | Val | Ala | Leu | Glu | Thr | Ala | Asp | Ala | Ala | Val | Leu | His | Gly |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Arg | Val | Gly | Asp | Val | Phe | Ala | Met | Ile | Ala | Leu | Ser | Lys | Arg | Thr | Met |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Asn | Ile | Arg | Gln | Asn | Ile | Ala | Ile | Ala | Ile | Gly | Leu | Lys | Ala | Val |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Phe | Leu | Val | Thr | Thr | Val | Val | Gly | Ile | Thr | Gly | Leu | Trp | Pro | Ala | Ile |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Leu | Ala | Asp | Thr | Gly | Thr | Thr | Glu | Leu | Val | Thr | Met | Asn | Ala | | |
| | | 115 | | | | | 120 | | | | | 125 | | | |

<210> 2313

<211> 669

<212> DNA

<213> Homo sapiens

<400> 2313

ctagtggcat ggtctcgctg gtctttagtg gagcataccg acacatcggt gactcaaacg
60
atccgaatca tggtctgtcc tggttggcct ggaaccatta acgtacgcct caccatcgc
120
ttaagcgacg ccggtctagc tgtcgaagtc accgcgcgca atgtcgggtac gacagcgggg
180
ccgcttggat acgcagcaca cccctatctc tgtctgggtg gcaccatcga cgactggaca
240

gtcgacgccc cgtttacctc gtggttacag gtcgatgac ggctgctacc aatgcagatg
 300
 cgcgagatgg acagcatcca cgcgctgaac ggtctcacgg gcggacagcg caccttcgat
 360
 accgcttaca ccgtgaaagg aggacggaac cgtcggatcg cccgcatggc gtatccgggt
 420
 ctcaacggtg aaacgagcca cgaattgtgg ggcgacgccg cgatgagctg ggtgcaagtc
 480
 tacactccag acgaccgcca cagtctggcc atcgagccaa tgacctgcgg cccagatgca
 540
 tttaatgagg gcccgaccca cggtgacgtc attcgactgg agcccggtaa tgacgtcaca
 600
 ctgcactggg gcacgccta acccgcgga gctcgaaagg acaaggacgg gaaggcagga
 660
 ttcacgcgt
 669

<210> 2314
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 2314
 Leu Val Ala Trp Ser Arg Trp Ser Leu Val Glu His Thr Asp Thr Ser
 1 5 10 15
 Val Thr Gln Thr Ile Arg Ile Met Ala Arg Pro Gly Trp Pro Gly Thr
 20 25 30
 Ile Asn Val Arg Leu Thr His Arg Leu Ser Asp Ala Gly Leu Ala Val
 35 40 45
 Glu Val Thr Ala Arg Asn Val Gly Thr Thr Ala Gly Pro Leu Gly Tyr
 50 55 60
 Ala Ala His Pro Tyr Leu Cys Leu Gly Gly Thr Ile Asp Asp Trp Thr
 65 70 75 80
 Val Asp Ala Pro Phe Thr Ser Trp Leu Gln Val Asp Asp Arg Leu Leu
 85 90 95
 Pro Met Gln Met Arg Glu Met Asp Ser Ile His Ala Leu Asn Gly Leu
 100 105 110
 Thr Gly Gly Gln Arg Thr Phe Asp Thr Ala Tyr Thr Val Lys Gly Gly
 115 120 125
 Arg Asn Arg Arg Ile Ala Arg Met Ala Tyr Pro Gly Leu Asn Gly Glu
 130 135 140
 Thr Ser His Glu Leu Trp Gly Asp Ala Ala Met Ser Trp Val Gln Val
 145 150 155 160
 Tyr Thr Pro Asp Asp Arg His Ser Leu Ala Ile Glu Pro Met Thr Cys
 165 170 175
 Gly Pro Asp Ala Phe Asn Glu Gly Pro Thr His Gly Asp Val Ile Arg
 180 185 190
 Leu Glu Pro Gly Asn Asp Val Thr Leu His Trp Gly Ile Ala
 195 200 205

<210> 2315
 <211> 546
 <212> DNA
 <213> Homo sapiens

<400> 2315

nacgcgtccc tcatcgatac cgagccccggg atgggaaaac ggggtgtatcg cgttgaggcc
 60
 acccaaggcc gaccaattcg catcgataag gcggtcgctt atcacacttc tcgcggcgtg
 120
 ccggtacatg aactgtttga ccgagtgcgc cgcagcttag accgagtgcg tgaacagggg
 180
 cacaacgtct actacgacga acagcgtgca tggcttgacg attactgggc aacggctgat
 240
 gttgaggtcg aggggtgcccc gaccgggtatt cagcaggctg tcaggtggaa ccttttccag
 300
 attggtcagg catcagcccg tgcagatcaa cttggcattc cggcaaaggg tgtaaccggg
 360
 tcaggttatg aaggccacta cttttgggac actgaggttt atgtcatccc gatgttgacc
 420
 tacactcatc caagaatcgc tgagaatgcg ctgagattcc ggggtgaatac ccttccgcaa
 480
 gctcgacgcc gggctaagga attgtctgaa cgaggcgccc ttttcccggtg gcgaacaatc
 540
 accggt
 546

<210> 2316

<211> 182

<212> PRT

<213> Homo sapiens

<400> 2316

Xaa Ala Ser Leu Ile Asp Thr Glu Pro Gly Met Gly Lys Arg Val Tyr
 1 5 10 15
 Arg Val Glu Ala Thr Gln Gly Arg Pro Ile Arg Ile Asp Lys Ala Val
 20 25 30
 Ala Tyr His Thr Ser Arg Gly Val Pro Val His Glu Leu Phe Asp Arg
 35 40 45
 Val Arg Arg Ser Leu Asp Arg Val Arg Glu Gln Gly His Asn Val Tyr
 50 55 60
 Tyr Asp Glu Gln Arg Ala Trp Leu Asp Asp Tyr Trp Ala Thr Ala Asp
 65 70 75 80
 Val Glu Val Glu Gly Ala Pro Thr Gly Ile Gln Gln Ala Val Arg Trp
 85 90 95
 Asn Leu Phe Gln Ile Ala Gln Ala Ser Ala Arg Ala Asp Gln Leu Gly
 100 105 110
 Ile Pro Ala Lys Gly Val Thr Gly Ser Gly Tyr Glu Gly His Tyr Phe
 115 120 125
 Trp Asp Thr Glu Val Tyr Val Ile Pro Met Leu Thr Tyr Thr His Pro
 130 135 140
 Arg Ile Ala Glu Asn Ala Leu Arg Phe Arg Val Asn Thr Leu Pro Gln
 145 150 155 160
 Ala Arg Arg Arg Ala Lys Glu Leu Ser Glu Arg Gly Ala Leu Phe Pro
 165 170 175
 Trp Arg Thr Ile Thr Gly
 180

<210> 2317
 <211> 496
 <212> DNA
 <213> Homo sapiens

<400> 2317
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 cagctgctga cgctgctgtg atgccgagga gatcggagac gattcgtggg tgcattctgcc
 180
 gggtcagttc gatcagcgcg gtcgttcgag cgcttctga acgcagcccc tgctggcgca
 240
 gacgtcggct gaggggcct ggtgtgagat gcaaccccg attcctgcc ggaagagcc
 300
 atccctcggg tcgggtgtctc gatgtgtcag cgagctcggc gatcgcatc cggaggacct
 360
 cgggcagttc gattggctcg gctccgatgg tgagcttccc cggtcgtgat gtcacgtcga
 420
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 480
 acccagcggc acgcgt
 496

<210> 2318
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 2318
 Met Pro Arg Arg Ser Glu Thr Ile Arg Gly Cys Ile Cys Arg Val Ser
 1 5 10 15
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 20 25 30
 Arg Arg Arg Arg Leu Ser Gly Pro Gly Val Arg Cys Asn Pro Gly Phe
 35 40 45
 Leu Pro Gly Lys Ser His Pro Ser Gly Arg Cys Leu Asp Val Ser Ala
 50 55 60
 Ser Ser Ala Ile Ala Phe Pro Arg Thr Ser Gly Ser Ser Ile Gly Ser
 65 70 75 80
 Ala Pro Met Val Ser Phe Pro Gly Arg Asp Val Thr Ser Thr Cys Ser
 85 90 95
 Arg Val Ser Ala Thr Met Arg Val Arg Trp Arg Pro
 100 105

<210> 2319
 <211> 1748
 <212> DNA
 <213> Homo sapiens

<400> 2319
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gaatatactc aattccaaaa ttatgtgaaa gaattgaaga aaaaacggaa gcagaaaact
120
tttatagtga aaccagctaa tgggtgcaatg ggtcatggga tttctttgat aagaaatggg
180
gacaaacttc catctcagga tcatttgatt gttcaagaat acattgaaaa gcctttccta
240
atggaagggtt acaagtttga cttacgaatt tatattctgg ttacatcgtg tgatccacta
300
aaaatatttc tctaccatga tgggcttggt cgaatgggta cagagaagta cattccacct
360
aatgagtcca atttgacca gttatacatg catctgacaa actactccgt gaacaagcat
420
aatgagcatt ttgaacggga tgaaactgag aacaaaggca gcaaacgttc catcaaattg
480
tttacagaat tccttcaagc aaatcaacat gatgttgcta agttttggag tgatatttca
540
gaattgggtgg taaagaccct gattgtagca gaacctcatg tcctgcatgc ctatcgaatg
600
tgtagacctg gtcaacctcc aggaagcgaa agtgtctgct ttgaagtcct gggatttgat
660
attttgttgg atagaaaact aaagccatgg cttctggaga ttaaccgagc cccaagcttt
720
ggaactgatc agaaaataga ctatgatgta aaaaggggag tgctgctaaa tgcgttgaag
780
ctactaaaca taaggaccag tgacaaaaga agaaacttgg ccaaacaaaa agctgagggt
840
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900
gaacagcaga gacaccagtt ggagaggcgg aaagaagagt tgaaagagag actcgctcaa
960
gtacgaaagc agatctcacg agaagaacat gaaaatcgac atatggggaa ttatagacga
1020
atttatcctc ctgaagataa agcattactt gaaaagtatg aaaatttggt agctgttgcc
1080
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1140
aaaaggatga aggaagaaga tattttggat cttctggagc aatgtgaaat tgatgatgaa
1200
aagttgatgg gaaaaactac caagactcga ggaccaaagc ctctgtgttc tatgcctgag
1260
agtactgaga taatgaaaag accaaagtac tgcagcagtg acagcagtta tgatagtagc
1320
agcagctctt cagaatctga cgaaaatgaa aaagaagagt accaaaataa gaaaagagaa
1380
aagcaagtta catataatct taaacctcc aaccactaca aattaattca acaaccagc
1440
tccataagac gttcagtcag ctgccctcgg tccatctctg ctcaatcacc ttccagtggg
1500
gacaccgcc cattttctgc tcaacaaatg atatctgtgt cacggccaac ttctgcatct
1560
cggtcacatt ccttaaacc cggccttcct cctacatgag gcatctgcct cacagtaatg
1620
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1680

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 1740
 caggaaag
 1748

<210> 2320

<211> 532

<212> PRT

<213> Homo sapiens

<400> 2320

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ile | Lys | Ser | Arg | Ser | Leu | Asp | Tyr | Thr | Phe | Val | Pro | Arg | Thr | Trp |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ile | Phe | Pro | Ala | Glu | Tyr | Thr | Gln | Phe | Gln | Asn | Tyr | Val | Lys | Glu | Leu |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Lys | Lys | Lys | Arg | Lys | Gln | Lys | Thr | Phe | Ile | Val | Lys | Pro | Ala | Asn | Gly |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Ala | Met | Gly | His | Gly | Ile | Ser | Leu | Ile | Arg | Asn | Gly | Asp | Lys | Leu | Pro |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ser | Gln | Asp | His | Leu | Ile | Val | Gln | Glu | Tyr | Ile | Glu | Lys | Pro | Phe | Leu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Met | Glu | Gly | Tyr | Lys | Phe | Asp | Leu | Arg | Ile | Tyr | Ile | Leu | Val | Thr | Ser |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Cys | Asp | Pro | Leu | Lys | Ile | Phe | Leu | Tyr | His | Asp | Gly | Leu | Val | Arg | Met |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Gly | Thr | Glu | Lys | Tyr | Ile | Pro | Pro | Asn | Glu | Ser | Asn | Leu | Thr | Gln | Leu |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Tyr | Met | His | Leu | Thr | Asn | Tyr | Ser | Val | Asn | Lys | His | Asn | Glu | His | Phe |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Glu | Arg | Asp | Glu | Thr | Glu | Asn | Lys | Gly | Ser | Lys | Arg | Ser | Ile | Lys | Trp |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Phe | Thr | Glu | Phe | Leu | Gln | Ala | Asn | Gln | His | Asp | Val | Ala | Lys | Phe | Trp |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ser | Asp | Ile | Ser | Glu | Leu | Val | Val | Lys | Thr | Leu | Ile | Val | Ala | Glu | Pro |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| His | Val | Leu | His | Ala | Tyr | Arg | Met | Cys | Arg | Pro | Gly | Gln | Pro | Pro | Gly |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Ser | Glu | Ser | Val | Cys | Phe | Glu | Val | Leu | Gly | Phe | Asp | Ile | Leu | Leu | Asp |
| | 210 | | | | 215 | | | | | 220 | | | | | |
| Arg | Lys | Leu | Lys | Pro | Trp | Leu | Leu | Glu | Ile | Asn | Arg | Ala | Pro | Ser | Phe |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Gly | Thr | Asp | Gln | Lys | Ile | Asp | Tyr | Asp | Val | Lys | Arg | Gly | Val | Leu | Leu |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Asn | Ala | Leu | Lys | Leu | Leu | Asn | Ile | Arg | Thr | Ser | Asp | Lys | Arg | Arg | Asn |
| | | 260 | | | | 265 | | | | | | | 270 | | |
| Leu | Ala | Lys | Gln | Lys | Ala | Glu | Ala | Gln | Arg | Arg | Leu | Tyr | Gly | Gln | Asn |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Ser | Ile | Lys | Arg | Leu | Leu | Pro | Gly | Ser | Ser | Asp | Trp | Glu | Gln | Gln | Arg |
| | 290 | | | | 295 | | | | | 300 | | | | | |
| His | Gln | Leu | Glu | Arg | Arg | Lys | Glu | Glu | Leu | Lys | Glu | Arg | Leu | Ala | Gln |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Val | Arg | Lys | Gln | Ile | Ser | Arg | Glu | Glu | His | Glu | Asn | Arg | His | Met | Gly |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Asn | Tyr | Arg | Arg | Ile | Tyr | Pro | Pro | Glu | Asp | Lys | Ala | Leu | Leu | Glu | Lys |

340 345 350
 Tyr Glu Asn Leu Leu Ala Val Ala Phe Gln Thr Phe Leu Ser Gly Arg
 355 360 365
 Ala Ala Ser Phe Gln Arg Glu Leu Asn Asn Pro Leu Lys Arg Met Lys
 370 375 380
 Glu Glu Asp Ile Leu Asp Leu Leu Glu Gln Cys Glu Ile Asp Asp Glu
 385 390 395 400
 Lys Leu Met Gly Lys Thr Thr Lys Thr Arg Gly Pro Lys Pro Leu Cys
 405 410 415
 Ser Met Pro Glu Ser Thr Glu Ile Met Lys Arg Pro Lys Tyr Cys Ser
 420 425 430
 Ser Asp Ser Ser Tyr Asp Ser Ser Ser Ser Ser Ser Glu Ser Asp Glu
 435 440 445
 Asn Glu Lys Glu Glu Tyr Gln Asn Lys Lys Arg Glu Lys Gln Val Thr
 450 455 460
 Tyr Asn Leu Lys Pro Ser Asn His Tyr Lys Leu Ile Gln Gln Pro Ser
 465 470 475 480
 Ser Ile Arg Arg Ser Val Ser Cys Pro Arg Ser Ile Ser Ala Gln Ser
 485 490 495
 Pro Ser Ser Gly Asp Thr Arg Pro Phe Ser Ala Gln Gln Met Ile Ser
 500 505 510
 Val Ser Arg Pro Thr Ser Ala Ser Arg Ser His Ser Leu Asn Pro Gly
 515 520 525
 Leu Pro Pro Thr
 530

<210> 2321
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 2321
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 cgtttctagaa atacagccac ataatttttt ttgttttgaa aaactgctca gcaaattgcat
 120
 acaggtcata atggcaggta acagaccatt tattgaagtg ctgaaacaaa tagaaaacaa
 180
 agtccaggac accatcacag agcagtactt cccttggtgag atactctcag ctaagtaaga
 240
 attgagtgag acaacaataa aacaaatacc cataggcttt tcaaacagta acaaccgcgt
 300
 cagggttagc agcattttcta gaccttgatg gtaaaatgat gttctcaacc tttgctttca
 360
 gacactggat cactgcttaa gtagccttta tcttttcccc ctaatttttg ttgaagatgc
 420
 cagaggtgga gtg
 433

<210> 2322
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 2322

Met Leu Leu Thr Leu Ser Gly Leu Leu Leu Phe Glu Lys Pro Met Gly
 1 5 10 15
 Ile Cys Phe Ile Val Val Ser Leu Asn Ser Tyr Leu Ala Glu Ser Ile
 20 25 30
 Ser Gln Gly Lys Tyr Cys Ser Val Met Val Ser Trp Thr Leu Phe Ser
 35 40 45
 Ile Cys Phe Ser Thr Ser Ile Asn Gly Leu Leu Pro Ala Ile Met Thr
 50 55 60
 Cys Met His Leu Leu Ser Ser Phe Ser Lys Gln Lys Lys Leu Cys Gly
 65 70 75 80
 Cys Ile Ser Arg Thr Leu Asn His Phe Gln Asp Ser Ile Glu Leu Glu
 85 90 95
 Thr His Ile Asp Thr Ser Thr Gln Leu
 100 105

<210> 2323

<211> 532

<212> DNA

<213> Homo sapiens

<400> 2323

acgcgtcaaa actggcaaag ctggcggctt agggggaggg gcaagtggac ttggaggccc
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 tcctccactg tgcacccctt tggaaaaaaa gcggaggggg catcaagtaa aagtttcttg
 120
 ccaggcagag ccagctcggc ggccccccgc acatagctgg ggtagcagg ggttgcttct
 180
 ctgccgggca cagcgnctctc caggagccag ccggggagag ctgagccaag gccgaaggag
 240
 ccgcctgcgg gcttagccgc cccctccgc ccgttgccc cagagcggac gctgggacgc
 300
 ccggggctctg gcagctctgc gcccggttag gagcgggagg gcgagcatta gcctgcgtcc
 360
 tggagaaggg gcgcagcgcc gcagttgagg ccgaagcagc ccctcgcggg cgtaggatac
 420
 ctgtcagtga gcgcccggat tgcacggccc ccgggtagtg cctgccggcg aggggcggga
 480
 gtcgggtga cttggccatc cccatccccg gccagggccc ggagggcggc cg
 532

<210> 2324

<211> 51

<212> PRT

<213> Homo sapiens

<400> 2324

Thr Arg Gln Asn Trp Gln Ser Trp Arg Leu Arg Gly Arg Gly Lys Trp
 1 5 10 15
 Thr Trp Arg Pro Ser Ser Thr Val His Pro Leu Gly Lys Lys Ala Glu
 20 25 30
 Gly Ala Ser Ser Lys Ser Phe Leu Pro Gly Arg Ala Ser Ser Ala Ala
 35 40 45
 Pro Arg Thr

50

<210> 2325
 <211> 459
 <212> DNA
 <213> Homo sapiens

<400> 2325
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 gatgagaacc gttttgtggc cgttaccagt tccaacgcag ctaagcttct gaacctgtat
 120
 ccccgcaagg gccgcattat tcccggagcc gatgctgatg tgggtggtgtg ggaccagaa
 180
 gccacaaaga ccatctcagc cagcacgcag gtccaggagg gagacttcaa cctgtatgag
 240
 aacatgcgct gccacggcgt gccactggtc accatcagcc gggggcgcgct cgtgtatgag
 300
 aacggcgctct tcatgtgcgc cgagggcacc ggcaagttct gtcccctgag gtccttccca
 360
 gacactgtct acaagaagct ggtccagaga gagaagactt taaaggtag aggagtggcc
 420
 cgcactccct acctggggga tgctgctgtt gtcgtgcac
 459

<210> 2326
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 2326
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 1 5 10 15
 Gly Gly Lys Met Asp Glu Asn Arg Phe Val Ala Val Thr Ser Ser Asn
 20 25 30
 Ala Ala Lys Leu Leu Asn Leu Tyr Pro Arg Lys Gly Arg Ile Ile Pro
 35 40 45
 Gly Ala Asp Ala Asp Val Val Val Trp Asp Pro Glu Ala Thr Lys Thr
 50 55 60
 Ile Ser Ala Ser Thr Gln Val Gln Gly Gly Asp Phe Asn Leu Tyr Glu
 65 70 75 80
 Asn Met Arg Cys His Gly Val Pro Leu Val Thr Ile Ser Arg Gly Arg
 85 90 95
 Val Val Tyr Glu Asn Gly Val Phe Met Cys Ala Glu Gly Thr Gly Lys
 100 105 110
 Phe Cys Pro Leu Arg Ser Phe Pro Asp Thr Val Tyr Lys Lys Leu Val
 115 120 125
 Gln Arg Glu Lys Thr Leu Lys Val Arg Gly Val Ala Arg Thr Pro Tyr
 130 135 140
 Leu Gly Asp Val Ala Val Val Val His
 145 150

<210> 2327
 <211> 599

<212> DNA

<213> Homo sapiens

<400> 2327

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 120
 tcagagatcc gagcagctga gaagaaattt gggagcaaca aggccgagat ggtggtgcct
 180
 gactttctcg agctttttcaa ggagagagcc acagccccct tctttgtatt tcaggtgttc
 240
 tgtgtggggc tctggtgcct ggatgagtac tgggtactaca gcgtctttac gctatccatg
 300
 ctggtggcgt tcgaggcctc gctggtgcag cagcagatgc ggaacatgtc ggagatccgg
 360
 aagatgggca acaagcccca catgatccag gtctaccgaa gccgcaagtg gagggccatt
 420
 gccagtgatg agatcgtacc aggggacatc gtctccatcg gtgaggccgg gttccgctca
 480
 gtcccagtgg gagccccagc ctcagggcct ctggccaacc ctctgcctc tgccctgcag
 540
 gccgctcccc acaggagaac ctggtgccat gtgacgtgct tctgctgcga ggccgctgc
 599

<210> 2328

<211> 199

<212> PRT

<213> Homo sapiens

<400> 2328

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Gln | Lys | Ile | Lys | Tyr | Ser | Tyr | Asp | Ala | Leu | Glu | Lys | Lys | Gln |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Phe | Leu | Pro | Val | Ala | Phe | Pro | Val | Gly | Asn | Ala | Phe | Ser | Tyr | Tyr | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Asn | Arg | Gly | Phe | Gln | Glu | Asp | Ser | Glu | Ile | Arg | Ala | Ala | Glu | Lys |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Lys | Phe | Gly | Ser | Asn | Lys | Ala | Glu | Met | Val | Val | Pro | Asp | Phe | Ser | Glu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Leu | Phe | Lys | Glu | Arg | Ala | Thr | Ala | Pro | Phe | Phe | Val | Phe | Gln | Val | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Cys | Val | Gly | Leu | Trp | Cys | Leu | Asp | Glu | Tyr | Trp | Tyr | Tyr | Ser | Val | Phe |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Leu | Ser | Met | Leu | Val | Ala | Phe | Glu | Ala | Ser | Leu | Val | Gln | Gln | |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Arg | Asn | Met | Ser | Glu | Ile | Arg | Lys | Met | Gly | Asn | Lys | Pro | His | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Gln | Val | Tyr | Arg | Ser | Arg | Lys | Trp | Arg | Pro | Ile | Ala | Ser | Asp | Glu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ile | Val | Pro | Gly | Asp | Ile | Val | Ser | Ile | Gly | Glu | Ala | Gly | Phe | Arg | Ser |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Val | Pro | Val | Gly | Ala | Pro | Ala | Ser | Gly | Pro | Leu | Ala | Asn | Pro | Pro | Ala |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Ser | Ala | Leu | Gln | Ala | Ala | Pro | His | Arg | Arg | Thr | Trp | Cys | His | Val | Thr |

180
Cys Phe Cys Cys Glu Ala Ala
195

185

190

<210> 2329
<211> 392
<212> DNA
<213> Homo sapiens

<400> 2329
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120
atgagcacgc aaccactga ggaaccactc cgactagtgtg tggcattcaa tccagtgcct
180
agtgcctccc gggttgctca tcatcatgcg acgagatttc gcctggcggt gcaggccttc
240
attgtcgtcg tcattggtgg tttgttggtg gcgttgacgg ccgacgcctt ccagttatcg
300
acgggtgatgt ggatgctcgg ggcattgggtg gtgctattcc tcgtgctttt cgtcatccag
360
aatctgcggc tgcacgccgc tcgcaaggat cc
392

<210> 2330
<211> 90
<212> PRT
<213> Homo sapiens

<400> 2330
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Asn Pro Val Pro Ser Ala Ser Arg Val Ala His His His Ala Thr Arg
20 25 30
Phe Arg Leu Ala Val Gln Ala Phe Ile Val Val Val Ile Gly Gly Leu
35 40 45
Leu Trp Ala Leu Thr Ala Asp Ala Phe Gln Leu Ser Thr Val Met Trp
50 55 60
Met Leu Gly Ala Trp Val Val Leu Phe Leu Val Leu Phe Val Ile Gln
65 70 75 80
Asn Leu Arg Leu His Ala Ala Arg Lys Asp
85 90

<210> 2331
<211> 2813
<212> DNA
<213> Homo sapiens

<400> 2331
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gatttaaggt gcccagatcc acgctgatgg actgccgtag acaactgaaa gacagtaagc
120

aaatattatc tattacaaag aactttaag ttgagaatat tggacctctt cctataactg
180
tttcgtctct gaaaattaat gggataact gccaaagtta tggattcgag gtgctggatt
240
gggattcagt tccccctgga cccaaacaca tcccgcgata tcagcattgt gttcactcca
300
gactttacct cctcctgggt aattcgggac ctaagtcttg taaccgcagc ggacctagaa
360
tttcgcttca ctctcaatgt gactctccct catcacctgt tggccttggtg tgcagacgtg
420
gttccaggac ccagctggga ggagtcattt tggaggctca cggctcttctt tgtcagtttg
480
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540
atgaaaacaa gacagaggca aaatgctagc tctctttcac agcaaaaacaa tggctctatg
600
gatgtaatca gccccattc ttacaaaagc aattgcaaga actttctcga tacatatggc
660
ccctctgata aaggcagggg gaagaactgc cttccagtga acactcccca aagcaggatc
720
cagaatgctg caaagaggag cccagccacc tatggtcatt ctcagaagaa gcacaaatgc
780
tcagtgtatt acagtaaaca caaaaccagc acagctgcgg ccagcagcac cagcacgact
840
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900
tgcactgatg ccatgcgtga gaactggatc agcctcagat atgcaagtgg cataaatgtc
960
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1020
aaaaacacaa ttgttttcag taatccttct tcagaatgta gtatgaagga gggaaatcacg
1080
acatgtatgt ttcctaagga aactgacatt aaaacttcag agaacacagc tgagttcaag
1140
gaacgggagc tctgtccact gaagacctcc aagaaactac ctgaaaacca tttaccaaga
1200
aactcacctc agtaccacca gccagacttg ccagaaattt ccaggaaaaa taatgggaat
1260
aaccagcaag tacctgtcaa gaatgaagta gatcattgtg aaaatttgaa gaagggtggac
1320
acaaagcctt cttcagaaaa gaagattcac aaaacatcta gagaagacat gttttctgag
1380
aaacaggaca tacctttcgt agagcaagaa gatccttata ggaagaaaaa gcttcaggag
1440
aaaagagaag gaaatttaca aaatttaaat tggagtaaaa gtcgaacatg tagaaagaac
1500
aagaaaaggg gtgttgctcc agtctcaagg cctcctgaac agagtgatct aaagcttggtg
1560
tgcagtgact ttgagaggtc tgagctgagc agtgacatca atgtaagaag ctgggtgtata
1620
caggaaagca ctagggaggt ttgtaaagca gatgccgaaa ttgcaagcag tttacctgct
1680
gcccagagag aggcagggtta ctaccagaag cctgagaaga aatgtgtgga caagttctgc
1740

tccgattcca gctctgactg tgggagctcc tctggcagcg tgcgtgccag ccggggcagc
 1800
 tgggggagct ggagcagcac cagcagctcc gacggggata agaagcccat ggtggacgcc
 1860
 cagcacttcc tgccggccgg agacagtgtt tcacaaaatg attttccttc tgaagctccc
 1920
 atctccttga atctttctca taacatctgc aatcccatga ccgtgaatag tctcccacaa
 1980
 tacgcagagc ctctctgtcc cagccttccct gccggggcca caggtgttga agaagataaa
 2040
 ggtctttact cacctggaga cctgtggccc actccgccag tgtgtgtgac aagcagctta
 2100
 aactgcaccc tggagaacgg cgtgccttgt gtgattcagg agtcggcccc ggttcataat
 2160
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 2220
 gaattgaacg attacaatgc ctttccagaa gaaaacatga actatgccaa tggcttcccc
 2280
 tgtcctgcag atgttcagac agactttatt gatcacaact ctacgtctac ctggaacacc
 2340
 ccaccaaca tgcctgctgc ctggggacat gccagtttca tcagctctcc gccctacctc
 2400
 acaagcaccc gaagcttgct tccaatgtct ggactttttg gttccatctg ggccccgcaa
 2460
 agcgatgtgt atgaaaattg ctgccccatc aacccaccca cggaacattc gaccacatg
 2520
 gaaaaccaag cggtcgtgtg caaggaatac taccgggggt tcaaccggtt tcgcgctat
 2580
 atgaacctgg acatatggac taccacagcg aataggaatg caaatttccc actgtctaga
 2640
 gactcgagtt actgtgggaa tgtgtgaaaa taattggatt tttaaacaat gtgaataaag
 2700
 aggcttgtgt tttgattact agtgtaaact ggttattgag atagattatg acattggtgg
 2760
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<210> 2332

<211> 789

<212> PRT

<213> Homo sapiens

<400> 2332

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Phe | Thr | Ser | Ser | Trp | Val | Ile | Arg | Asp | Leu | Ser | Leu | Val | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Ala | Ala | Asp | Leu | Glu | Phe | Arg | Phe | Thr | Leu | Asn | Val | Thr | Leu | Pro | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Leu | Leu | Pro | Leu | Cys | Ala | Asp | Val | Val | Pro | Gly | Pro | Ser | Trp | Glu |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Glu | Ser | Phe | Trp | Arg | Leu | Thr | Val | Phe | Phe | Val | Ser | Leu | Ser | Leu | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Val | Ile | Leu | Ile | Ala | Phe | Gln | Gln | Ala | Gln | Tyr | Ile | Leu | Met | Glu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Phe | Met | Lys | Thr | Arg | Gln | Arg | Gln | Asn | Ala | Ser | Ser | Ser | Ser | Gln | Gln |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Asn | Gly | Pro | Met | Asp | Val | Ile | Ser | Pro | His | Ser | Tyr | Lys | Ser | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Cys | Lys | Asn | Phe | Leu | Asp | Thr | Tyr | Gly | Pro | Ser | Asp | Lys | Gly | Arg | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Asn | Cys | Leu | Pro | Val | Asn | Thr | Pro | Gln | Ser | Arg | Ile | Gln | Asn | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Lys | Arg | Ser | Pro | Ala | Thr | Tyr | Gly | His | Ser | Gln | Lys | Lys | His | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Cys | Ser | Val | Tyr | Tyr | Ser | Lys | His | Lys | Thr | Ser | Thr | Ala | Ala | Ala | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Thr | Ser | Thr | Thr | Thr | Glu | Glu | Lys | Gln | Thr | Ser | Pro | Leu | Gly | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Leu | Pro | Ala | Ala | Lys | Glu | Asp | Ile | Cys | Thr | Asp | Ala | Met | Arg | Glu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Asn | Trp | Ile | Ser | Leu | Arg | Tyr | Ala | Ser | Gly | Ile | Asn | Val | Asn | Leu | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Asn | Leu | Thr | Leu | Pro | Lys | Asn | Leu | Leu | Asn | Lys | Glu | Glu | Asn | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Lys | Asn | Thr | Ile | Val | Phe | Ser | Asn | Pro | Ser | Ser | Glu | Cys | Ser | Met |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Lys | Glu | Gly | Ile | Gln | Thr | Cys | Met | Phe | Pro | Lys | Glu | Thr | Asp | Ile | Lys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Thr | Ser | Glu | Asn | Thr | Ala | Glu | Phe | Lys | Glu | Arg | Glu | Leu | Cys | Pro | Leu |
| | | | 275 | | | | 280 | | | | | | 285 | | |
| Lys | Thr | Ser | Lys | Lys | Leu | Pro | Glu | Asn | His | Leu | Pro | Arg | Asn | Ser | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gln | Tyr | His | Gln | Pro | Asp | Leu | Pro | Glu | Ile | Ser | Arg | Lys | Asn | Asn | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Asn | Gln | Gln | Val | Pro | Val | Lys | Asn | Glu | Val | Asp | His | Cys | Glu | Asn |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Lys | Lys | Val | Asp | Thr | Lys | Pro | Ser | Ser | Glu | Lys | Lys | Ile | His | Lys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Thr | Ser | Arg | Glu | Asp | Met | Phe | Ser | Glu | Lys | Gln | Asp | Ile | Pro | Phe | Val |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Glu | Gln | Glu | Asp | Pro | Tyr | Arg | Lys | Lys | Lys | Leu | Gln | Glu | Lys | Arg | Glu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Asn | Leu | Gln | Asn | Leu | Asn | Trp | Ser | Lys | Ser | Arg | Thr | Cys | Arg | Lys |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asn | Lys | Lys | Arg | Gly | Val | Ala | Pro | Val | Ser | Arg | Pro | Pro | Glu | Gln | Ser |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Asp | Leu | Lys | Leu | Val | Cys | Ser | Asp | Phe | Glu | Arg | Ser | Glu | Leu | Ser | Ser |
| | | | 420 | | | | | 425 | | | | 430 | | | |
| Asp | Ile | Asn | Val | Arg | Ser | Trp | Cys | Ile | Gln | Glu | Ser | Thr | Arg | Glu | Val |

515 520 525
 Asp Ser Val Ser Gln Asn Asp Phe Pro Ser Glu Ala Pro Ile Ser Leu
 530 535 540
 Asn Leu Ser His Asn Ile Cys Asn Pro Met Thr Val Asn Ser Leu Pro
 545 550 555 560
 Gln Tyr Ala Glu Pro Ser Cys Pro Ser Leu Pro Ala Gly Pro Thr Gly
 565 570 575
 Val Glu Glu Asp Lys Gly Leu Tyr Ser Pro Gly Asp Leu Trp Pro Thr
 580 585 590
 Pro Pro Val Cys Val Thr Ser Ser Leu Asn Cys Thr Leu Glu Asn Gly
 595 600 605
 Val Pro Cys Val Ile Gln Glu Ser Ala Pro Val His Asn Ser Phe Ile
 610 615 620
 Asp Trp Ser Ala Thr Cys Glu Gly Gln Phe Ser Ser Ala Tyr Cys Pro
 625 630 635 640
 Leu Glu Leu Asn Asp Tyr Asn Ala Phe Pro Glu Glu Asn Met Asn Tyr
 645 650 655
 Ala Asn Gly Phe Pro Cys Pro Ala Asp Val Gln Thr Asp Phe Ile Asp
 660 665 670
 His Asn Ser Gln Ser Thr Trp Asn Thr Pro Pro Asn Met Pro Ala Ala
 675 680 685
 Trp Gly His Ala Ser Phe Ile Ser Ser Pro Pro Tyr Leu Thr Ser Thr
 690 695 700
 Arg Ser Leu Ser Pro Met Ser Gly Leu Phe Gly Ser Ile Trp Ala Pro
 705 710 715 720
 Gln Ser Asp Val Tyr Glu Asn Cys Cys Pro Ile Asn Pro Thr Thr Glu
 725 730 735
 His Ser Thr His Met Glu Asn Gln Ala Val Val Cys Lys Glu Tyr Tyr
 740 745 750
 Pro Gly Phe Asn Pro Phe Arg Ala Tyr Met Asn Leu Asp Ile Trp Thr
 755 760 765
 Thr Thr Ala Asn Arg Asn Ala Asn Phe Pro Leu Ser Arg Asp Ser Ser
 770 775 780
 Tyr Cys Gly Asn Val
 785

<210> 2333

<211> 501

<212> DNA

<213> Homo sapiens

<400> 2333

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 120
 gacgaagttc ttcacaaagc aaaatcatat ttgtcagcag atgaatatga gtatgtttta
 180
 aaaagctatc atattgctta tgaagcacat aaaggtcagt tccgaaaaaa cggattacca
 240
 tacattatgc atcctataca agttgcaggt attttaacag aaatgcgatt agacggaccg
 300
 acgattgtcg cagggtttttt gcatgatgta attgaagata caccgtatac atttgaagat
 360

gtaaaagaaa tgttcaatga agaagttgct cgaattgttg atgggtgtgac gaagcttaaa
 420
 aaaataaaat accgctcaaa agaagaacaa caagctgaaa atcatcgcaa gttattttatt
 480
 gcgattgcca aagatgtacg c
 501

<210> 2334

<211> 143

<212> PRT

<213> Homo sapiens

<400> 2334

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Gly | Val | Tyr | His | Ile | Met | Asn | Asn | Glu | Tyr | Pro | Tyr | Ser | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Glu | Val | Leu | His | Lys | Ala | Lys | Ser | Tyr | Leu | Ser | Ala | Asp | Glu | Tyr |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Glu | Tyr | Val | Leu | Lys | Ser | Tyr | His | Ile | Ala | Tyr | Glu | Ala | His | Lys | Gly |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Gln | Phe | Arg | Lys | Asn | Gly | Leu | Pro | Tyr | Ile | Met | His | Pro | Ile | Gln | Val |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Ala | Gly | Ile | Leu | Thr | Glu | Met | Arg | Leu | Asp | Gly | Pro | Thr | Ile | Val | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Gly | Phe | Leu | His | Asp | Val | Ile | Glu | Asp | Thr | Pro | Tyr | Thr | Phe | Glu | Asp |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Lys | Glu | Met | Phe | Asn | Glu | Glu | Val | Ala | Arg | Ile | Val | Asp | Gly | Val |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Thr | Lys | Leu | Lys | Lys | Ile | Lys | Tyr | Arg | Ser | Lys | Glu | Glu | Gln | Gln | Ala |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Glu | Asn | His | Arg | Lys | Leu | Phe | Ile | Ala | Ile | Ala | Lys | Asp | Val | Arg | |
| | 130 | | | | | 135 | | | | | 140 | | | | |

<210> 2335

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2335

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 tctctgcaga tggaccacac agcattcccc tgtggctgct gcagggaggg ctgtgagaac
 120
 cccatggggc gtgtggaatt taatcaggca agagttcaga cccatttcat ccacacactc
 180
 accgcctgc agttggaaca ggaggctgag agctttaggg agctggaggc ccctgcccag
 240
 ggagccccac ccagccctgg tgaggaggcc ctggtcccta ctttcccact ggccaagccc
 300
 cccatgaaca atgagctggg agacaacagc tgcagcagcg acatgactga ttcttccaca
 360
 gcatcttcat cagcatcggg cactagt
 387

<210> 2336

<211> 106
 <212> PRT
 <213> Homo sapiens

<400> 2336
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 Asn Pro Met Gly Arg Val Glu Phe Asn Gln Ala Arg Val Gln Thr His
 20 25 30
 Phe Ile His Thr Leu Thr Arg Leu Gln Leu Glu Gln Glu Ala Glu Ser
 35 40 45
 Phe Arg Glu Leu Glu Ala Pro Ala Gln Gly Ser Pro Pro Ser Pro Gly
 50 55 60
 Glu Glu Ala Leu Val Pro Thr Phe Pro Leu Ala Lys Pro Pro Met Asn
 65 70 75 80
 Asn Glu Leu Gly Asp Asn Ser Cys Ser Ser Asp Met Thr Asp Ser Ser
 85 90 95
 Thr Ala Ser Ser Ser Ala Ser Gly Thr Ser
 100 105

<210> 2337
 <211> 359
 <212> DNA
 <213> Homo sapiens

<400> 2337
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 accatgtgca gctcaagaat ggcctccggc ccatcggcct cggggcaggg gaagggcagc
 120
 ttctctgcac cagcttcctt gctgggctcc agggcccaca ggctgaggcc gggggcccag
 180
 ggggtcaatgc caggcaccct gctattgagg aacctatcca ggaggaagga ctccgggcaga
 240
 cctgcgggat cctcgtcttc ccacgggtcc tcatggcaga agcagaagga gctggagtcg
 300
 ctgaggtccg tgggcaggcg ggctggggcc aacgtggggt caccgacctc ctcaaagct
 359

<210> 2338
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 2338
 Met Cys Ser Ser Arg Met Ala Ser Gly Pro Ser Ala Ser Gly Gln Gly
 1 5 10 15
 Lys Gly Ser Phe Ser Ala Pro Ala Ser Leu Leu Gly Ser Arg Ala His
 20 25 30
 Arg Leu Arg Pro Gly Ala Gln Gly Ser Met Pro Gly Thr Leu Leu Leu
 35 40 45
 Arg Asn Leu Ser Arg Arg Lys Asp Ser Gly Arg Pro Ala Gly Ser Ser
 50 55 60
 Ser Ser His Gly Ser Ser Trp Gln Lys Gln Lys Glu Leu Glu Ser Leu

1709

gccaaacctc ccctccatcc tgccaagat ggatcttgct gagcctccct ggcatatgcc
 60
 tctgcaggag gagccagagg aggtcacgga ggaggaggag gaaagggag aagaggagag
 120
 ggagaaggaa gcagaggagg aggaggaaga ggaagagctg ctctgtgag cgggtcccca
 180
 ggagccaccg cacaggccca tgccccttca cctagcacca gcagcagcac cagcagccag
 240
 agtcctgggg ccaccggca caggcaggag gattctggag accaggccac atcaggcnat
 300
 ggaagtggag agcagtgtga aaccacacctt gtcagtgcc tcagtcaccc caagtacagt
 360
 ggccccgggg gtccagaact atagccagga gtctgggggc actgagtggc n
 411

<210> 2342

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2342

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Leu | Ala | Tyr | Ala | Ser | Ala | Gly | Gly | Ala | Arg | Gly | Gly | His | Gly |
| 1 | | | | | 5 | | | | | 10 | | | | 15 | |
| Gly | Gly | Gly | Gly | Lys | Gly | Arg | Arg | Gly | Glu | Gly | Glu | Gly | Ser | Arg | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Gly | Gly | Arg | Gly | Arg | Ala | Ala | Pro | Val | Ser | Gly | Ser | Pro | Gly | Ala |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Thr | Ala | Gln | Ala | His | Ala | Pro | Ser | Pro | Ser | Thr | Ser | Ser | Ser | Thr | Ser |
| | | | 50 | | | | 55 | | | | | 60 | | | |
| Ser | Gln | Ser | Pro | Gly | Ala | Thr | Arg | His | Arg | Gln | Glu | Asp | Ser | Gly | Asp |
| | | | | | | 70 | | | | | 75 | | | 80 | |
| Gln | Ala | Thr | Ser | Gly | Xaa | Gly | Ser | Gly | Glu | Gln | Cys | Glu | Thr | His | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Ser | Ala | Leu | Ser | His | Pro | Lys | Tyr | Ser | Gly | Pro | Gly | Gly | Ser | Glu |
| | | | 100 | | | | | | 105 | | | | | 110 | |

Leu

<210> 2343

<211> 522

<212> DNA

<213> Homo sapiens

<400> 2343

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 ggaggccagg gaccctacca agccatgtcc caggacatgg gcaataccca agacatgttc
 120
 agccctgata agagctcaat gcccatgagc aacgtgggca ccaccgggct cagccacatg
 180
 cctctgcccc ctgcgtccaa tcctcctggg accgtgcatt cagccccaaa ccgggggcta
 240
 ggaggcgggc cttcggacct caccatcagt attaatacaga tgggctcacc gggcatgggg
 300

cacttgaagt cgcccaccct tagccagggtg cactcaccctc tggtcacctc gccctctgcc
 360
 aacctcaagt caccacagac tccctcacag atggtgccct tgccttctgc caaccgcca
 420
 ggacctctca agtcgccccca ggtcctcggc tctcctctca gtgtccgttc acccactggg
 480
 tcgcccagca ggctcaagtc tccctccatg gcgggtgcctt ct
 522

<210> 2344

<211> 174

<212> PRT

<213> Homo sapiens

<400> 2344

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Gln | Lys | Met | Leu | Met | Pro | Ser | Gln | Phe | Pro | Asn | Gln | Gly | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Gly | Phe | Ser | Gly | Gly | Gln | Gly | Pro | Tyr | Gln | Ala | Met | Ser | Gln | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Gly | Asn | Thr | Gln | Asp | Met | Phe | Ser | Pro | Asp | Gln | Ser | Ser | Met | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Ser | Asn | Val | Gly | Thr | Thr | Arg | Leu | Ser | His | Met | Pro | Leu | Pro | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ser | Asn | Pro | Pro | Gly | Thr | Val | His | Ser | Ala | Pro | Asn | Arg | Gly | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gly | Arg | Arg | Pro | Ser | Asp | Leu | Thr | Ile | Ser | Ile | Asn | Gln | Met | Gly | Ser |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Pro | Gly | Met | Gly | His | Leu | Lys | Ser | Pro | Thr | Leu | Ser | Gln | Val | His | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Leu | Val | Thr | Ser | Pro | Ser | Ala | Asn | Leu | Lys | Ser | Pro | Gln | Thr | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Gln | Met | Val | Pro | Leu | Pro | Ser | Ala | Asn | Pro | Pro | Gly | Pro | Leu | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Pro | Gln | Val | Leu | Gly | Ser | Ser | Leu | Ser | Val | Arg | Ser | Pro | Thr | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Ser | Pro | Ser | Arg | Leu | Lys | Ser | Pro | Ser | Met | Ala | Val | Pro | Ser | | |
| | | | | 165 | | | | | 170 | | | | | | |

<210> 2345

<211> 561

<212> DNA

<213> Homo sapiens

<400> 2345

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 ggctccacc agcccgcgtc caggccgcct gggctcgacg cgctggacag gcgcccgcgg
 120
 ctggcgctgc cgccttttg cgtttccgc cttttcttgc gcttctggtg cttgctggag
 180
 gcctgcgcgc ccgctcgcc tgcgctgtcc gagtccttgg cgctgtcgga cgtgagtgc
 240
 tcgcagttct gcagccgag gtccgactcg ctctccacca tagctattaa tgccaagaat
 300

gcaaatgaaa agaatatcat ctgggtgaat taccttctta gcaatcctga gtacaaggac
 360
 acacccatgg acatcgacaca gctcccccat ctgccggaga aaacttccga atcctcggag
 420
 acatccgact ctgagtcaga ctctaaagac acctcaggta ttacagagga caacgagaac
 480
 tccaagnntc cgacgagaag gggaaccagt ccgagaacag cgaagacccg gagcccgacc
 540
 ggaagaagtc gggcaacgcg t
 561

<210> 2346

<211> 187

<212> PRT

<213> Homo sapiens

<400> 2346

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ile | Ser | Val | Leu | Ile | Leu | Ser | Thr | Glu | Ala | Leu | Gly | Gly | Glu | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Ser | Arg | Gly | Gly | Leu | His | Gln | Pro | Ala | Ser | Arg | Pro | Pro | Gly | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Ala | Leu | Asp | Arg | Arg | Arg | Arg | Leu | Ala | Leu | Pro | Pro | Phe | Cys | Arg |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Phe | Arg | Leu | Phe | Leu | Arg | Phe | Trp | Cys | Leu | Leu | Glu | Ala | Cys | Ala | Pro |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ala | Ser | Pro | Ala | Leu | Ser | Glu | Ser | Leu | Ala | Leu | Ser | Asp | Val | Ser | Asp |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Gln | Phe | Cys | Ser | Arg | Arg | Ser | Asp | Ser | Leu | Ser | Thr | Ile | Ala | Ile |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asn | Ala | Lys | Asn | Ala | Asn | Glu | Lys | Asn | Ile | Ile | Trp | Val | Asn | Tyr | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Leu | Ser | Asn | Pro | Glu | Tyr | Lys | Asp | Thr | Pro | Met | Asp | Ile | Ala | Gln | Leu |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Pro | His | Leu | Pro | Glu | Lys | Thr | Ser | Glu | Ser | Ser | Glu | Thr | Ser | Asp | Ser |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Glu | Ser | Asp | Ser | Lys | Asp | Thr | Ser | Gly | Ile | Thr | Glu | Asp | Asn | Glu | Asn |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Ser | Lys | Xaa | Pro | Thr | Arg | Arg | Gly | Thr | Ser | Pro | Arg | Thr | Ala | Lys | Thr |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Arg | Ser | Pro | Thr | Gly | Arg | Ser | Arg | Ala | Thr | Arg | | | | | |
| | | | 180 | | | | | 185 | | | | | | | |

<210> 2347

<211> 375

<212> DNA

<213> Homo sapiens

<400> 2347

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 120
 gtcgggtccga acatcgacgc ctggtccgat ttccagccgc tgggcgtggt ggcgggggac
 180

acgccattca acttcccggc gatggtgccc ctgtggatgt atccggttggc gatcgtttgc
 240
 ggtaactgct ttatcctcaa gccgtccgag cgtgatccga gctcgacctt gctgatcgcc
 300
 cagctgttgc aggaagccgg tttgccccaa ggtgtgctga acgtggtgca tggtgacaag
 360
 accgcggtgg acgcg
 375

<210> 2348
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 2348
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 20 25 30
 Leu Lys Gly Glu Tyr Ser Arg Asn Val Gly Pro Asn Ile Asp Ala Trp
 35 40 45
 Ser Asp Phe Gln Pro Leu Gly Val Val Ala Gly Ile Thr Pro Phe Asn
 50 55 60
 Phe Pro Ala Met Val Pro Leu Trp Met Tyr Pro Leu Ala Ile Val Cys
 65 70 75 80
 Gly Asn Cys Phe Ile Leu Lys Pro Ser Glu Arg Asp Pro Ser Ser Thr
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 <213> Homo sapiens

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 Gly Asn Thr Asn Glu Leu Asn Ala Ser Tyr Ala Ala Asp Gly Tyr Ala
 50 55 60
 Arg Ile Asn Gly Ile Gly Ala Met Val Thr Thr Phe Gly Val Gly Glu
 65 70 75 80
 Leu Ser Ala Val Asn Gly Ile Ala Gly Ser Tyr Ala Glu Arg Val Pro
 85 90 95
 Val Ile Ala Ile Thr Gly Ala Pro Thr Arg Ala Val Glu Gln Glu Gly
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 Lys Tyr Val His His Ser Leu Gly Glu Gly Thr Phe Asp Asp Tyr Arg
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 35 40 45
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 50 55 60
 Ser Leu Asp Ala Asn Gly Arg Gln Thr Thr Leu Asn Pro Tyr Leu Gly
 65 70 75 80
 Ala Gln Leu Ala Leu Cys Glu Ala Tyr Arg Asn Val Ala Val Ser Gly
 85 90 95
 Ala Thr Pro Val Ala Val Thr Asp Cys Leu Asn Tyr Gly Ser Pro Tyr
 100 105 110
 Asp Pro Asp Val Met Trp Gln Phe Asp Glu Thr Ile Leu Gly Leu Val
 115 120 125
 Asp Gly Cys Arg Glu Leu Gly Val Pro Val Thr Gly Gly Asn Val Ser
 130 135 140
 Leu His Asn Arg Thr Gly Asp Glu Ser Ile Arg Pro Thr Pro Leu Val
 145 150 155 160
 Gly Val Leu Gly Val Ile Asp Asp Val His Arg Arg Ile Pro Ser Ala
 165 170 175
 Phe Ala His Asp Gly Asp Ala Val Leu Leu Leu Gly Thr Thr Lys Cys
 180 185 190
 Glu Phe Gly Gly Ser Val Tyr Glu Asp Val Ile His Ala Gly His Leu
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 <213> Homo sapiens

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 20 25 30
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 35 40 45
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 Glu Glu Asp Phe Glu Lys Val Ile Lys Ile Asn Leu Thr Gly Ala Phe
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 Asn Met Thr Gln Ala Val Leu Lys Gln Met Ile Lys Ala Arg Glu Gly
 85 90 95
 Ala Ile Ile Asn Met Ser Ser Val Val Gly Leu Met Gly Asn Ile Gly
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<211> 1000

<212> PRT

<213> Homo sapiens

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 35 40 45
 Glu Trp Cys Phe Gly Leu Val Ile Phe Ala Gly Pro Asp Thr Lys Leu
 50 55 60
 Met Gln Asn Ser Gly Arg Thr Lys Phe Lys Arg Thr Ser Ile Asp Arg
 65 70 75 80
 Leu Met Asn Thr Leu Val Leu Trp Ile Phe Gly Phe Leu Val Cys Met
 85 90 95
 Gly Val Ile Leu Ala Ile Gly Asn Ala Ile Trp Glu His Glu Val Gly
 100 105 110
 Met Arg Phe Gln Val Tyr Leu Pro Trp Asp Glu Ala Val Asp Ser Ala
 115 120 125
 Phe Phe Ser Gly Phe Leu Ser Phe Trp Ser Tyr Ile Ile Ile Leu Asn
 130 135 140
 Thr Val Val Pro Ile Ser Leu Tyr Val Ser Val Glu Val Ile Arg Leu
 145 150 155 160
 Gly His Ser Tyr Phe Ile Asn Trp Asp Lys Lys Met Phe Cys Met Lys
 165 170 175
 Lys Arg Thr Pro Ala Glu Ala Arg Thr Thr Thr Leu Asn Glu Glu Leu
 180 185 190
 Gly Gln Val Glu Tyr Ile Phe Ser Asp Lys Thr Gly Thr Leu Thr Gln
 195 200 205
 Asn Ile Met Val Phe Asn Lys Cys Ser Ile Asn Gly His Ser Tyr Gly
 210 215 220
 Asp Val Phe Asp Val Leu Gly His Lys Ala Glu Leu Gly Glu Arg Pro
 225 230 235 240
 Glu Pro Val Asp Phe Ser Phe Asn Pro Leu Ala Asp Lys Lys Phe Leu
 245 250 255
 Phe Trp Asp Pro Ser Leu Leu Glu Ala Val Lys Ile Gly Asp Pro His
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 275 280 285
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 Glu Gly Ala Leu Val Thr Ala Ala Arg Asn Phe Gly Phe Val Phe Arg
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 Ser Arg Thr Pro Lys Thr Ile Thr Val His Glu Met Gly Thr Ala Ile
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 355 360 365
 Lys Gly Ala Asp Thr Ile Leu Leu Asp Arg Leu His His Ser Thr Gln
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 Tyr Glu Glu Trp Ala Glu Arg Arg Leu Gln Ala Ser Leu Ala Gln Asp

420 425 430
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 450 455 460
 Val Pro Glu Thr Ile Ala Leu Leu Thr Leu Ala Asn Ile Lys Ile Trp
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 485 490 495
 Cys Lys Met Leu Thr Asp Asp Met Thr Glu Val Phe Ile Val Thr Gly
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 His Thr Val Leu Glu Val Arg Glu Glu Xaa Gln Glu Ser Pro Gly Glu
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 <212> DNA
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 <212> PRT
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<213> Homo sapiens
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<212> DNA
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1723

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tgcagctcca caccgggaa acaccacatg ctgctttt
398

<210> 2362

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2362

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Leu | Pro | Ser | Arg | Ser | Thr | Gln | Thr | Ser | Trp | Ser | Arg | Gly | Thr |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Ile | Pro | Ala | Leu | Ser | Ser | Arg | Ser | Cys | Arg | Glu | Ser | Pro | Lys | Gly |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Arg | Trp | Trp | Gly | Trp | Gly | Leu | Gln | Leu | Gly | Pro | Leu | Ile | Ser | Leu | |
| | 35 | | | | | 40 | | | | 45 | | | | | |
| Lys | Ala | Gln | Gln | His | Thr | Val | Ser | Gln | Val | Cys | Gln | Val | Pro | Gln | His |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Gly | His | Pro | Ala | Leu | Thr | Ala | Pro | Pro | Arg | Leu | Pro | Ala | Cys | His | His |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | His | Lys | His | Met | Leu | Gln | Leu | His | Thr | Arg | Glu | Thr | Pro | His | Ala |
| | | | 85 | | | | | 90 | | | | | | 95 | |

Arg Phe

<210> 2363

<211> 833

<212> DNA

<213> Homo sapiens

<400> 2363

nngactcctc tagctcccaa cgcaaaagcg tttaaagatg cagctcagaa gcatcaccag
60
cagcacaagg ggaggtccca agaaccagaa cttacatcac tgccctccgag ttcagagggt
120
tcctttccca ccttctcaga actttctgtt tccatggcct cctctgccac ctctgccacc
180
tcccctgatg tgctggcctc cgtttccatc gcttccctcat ggcgttcttc cgcccgggtg
240
tccaagccca ctgcangtcg aagcaaactg gattgcgtta ccactcagaa ggtggcacag
300
ggactggcag cggtgccatc tgggagctctg tgtgctcagc ctccgagtgc aggccttcccc
360

ggccccctgct gtgggtgctag gtccccagat gagagatcac ggtcatgaag atcagcccc
 420
 aaggcagccc cttccnttcc agcctgggct ctggcggtgt ctaggtgtc acttccatgg
 480
 ctggcctgct cacagagccc tacctcagcc tgtggaagc gcacctgtc ggccctggtg
 540
 ctctatgatg agccaccagt cagttctgca gatgtgtccc cgagctcctg ccgagggacg
 600
 aaacacggtg gccctgctcc tagtgacctgt gcacgccacg ctccacacct gccatctgcc
 660
 cttccaccac ctgctcccc aggggctccg cctcgtgact cacgctcagg caagtctccg
 720
 ggcgcaaca gctggctgat ggtgacatgc tgcagcctgg tcacatcaga aaccatgagg
 780
 gtggatctcc ggaggatcgc gatgtggaca gactgccaca gcccttcacg cgt
 833

<210> 2364

<211> 135

<212> PRT

<213> Homo sapiens

<400> 2364

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Thr | Pro | Leu | Ala | Pro | Asn | Ala | Lys | Ala | Phe | Lys | Asp | Ala | Ala | Gln |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Lys | His | His | Gln | Gln | His | Lys | Gly | Arg | Ser | Gln | Glu | Pro | Glu | Leu | Thr |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Ser | Leu | Pro | Pro | Ser | Ser | Glu | Val | Ser | Phe | Pro | Thr | Phe | Ser | Glu | Leu |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ser | Val | Ser | Met | Ala | Ser | Ser | Ala | Thr | Ser | Ala | Thr | Ser | Pro | Asp | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Ala | Ser | Val | Ser | Ile | Ala | Ser | Ser | Trp | Arg | Ser | Ser | Ala | Arg | Cys |
| 65 | | | | | 70 | | | | 75 | | | | 80 | | |
| Ser | Lys | Pro | Thr | Ala | Xaa | Arg | Ser | Lys | Arg | Asp | Cys | Val | Thr | Thr | Gln |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Lys | Val | Ala | Gln | Gly | Leu | Ala | Ala | Val | Pro | Ser | Gly | Ser | Leu | Cys | Ala |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Gln | Pro | Pro | Ser | Ala | Gly | Phe | Pro | Gly | Pro | Cys | Cys | Gly | Ala | Arg | Ser |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Pro | Asp | Glu | Arg | Ser | Arg | Ser | | | | | | | | | |
| | 130 | | | | | 135 | | | | | | | | | |

<210> 2365

<211> 429

<212> DNA

<213> Homo sapiens

<400> 2365

accggtgccc agtccccacg gctcgtccag acctacgttg agaaacttcg acgagacagt
 60
 ctccgtcagt tcgcccaca acctctgaac gaagtcaaga ttctccggca ctggagccaa
 120
 ggtgcttgcc ctggcatgaa cgccccaggg gaggtcgacg ccgtcgggat tctcacaccg
 180

atggtgatgg gactcggttt ccaaccacgg ttccatgtga cccagacagt tctggttgcc
 240
 cccgagctcg atgcctcgtc cgcgacacag accatcgagc cacctcatgt cctccgccgt
 300
 caccggggctg cggtcggccc acacctcttc ctaccgcgg taggcaaata ccgcttcacc
 360
 atagagctca aggtgattga gaccacaccg cgccatgacg cgcgtcagga aatcaagagt
 420
 ggaacgcgt
 429

<210> 2366

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2366

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Arg | Cys | Gly | Leu | Asn | His | Leu | Glu | Leu | Tyr | Gly | Glu | Ala | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Ala | Tyr | Arg | Gly | Glu | Glu | Glu | Val | Trp | Ala | Asp | Arg | Ser | Pro | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ala | Glu | Asp | Met | Arg | Trp | Leu | Asp | Gly | Leu | Cys | Arg | Gly | Arg | Gly |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ile | Glu | Leu | Gly | Ala | Asn | Gln | Asn | Cys | Leu | Gly | His | Met | Glu | Pro | Trp |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Leu | Glu | Thr | Glu | Ser | His | His | His | Arg | Cys | Glu | Asn | Pro | Asp | Gly | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Leu | Pro | Trp | Gly | Val | His | Ala | Arg | Ala | Ser | Thr | Leu | Ala | Pro | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Pro | Glu | Asn | Leu | Asp | Phe | Val | Gln | Arg | Leu | Leu | Gly | Glu | Leu | Thr | Glu |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Thr | Val | Ser | Ser | Lys | Phe | Leu | Asn | Val | Gly | Leu | Asp | Glu | Pro | Trp | Glu |
| | | | 115 | | | | 120 | | | | | | | 125 | |
| Leu | Gly | Thr | Gly | | | | | | | | | | | | |
| | | | 130 | | | | | | | | | | | | |

<210> 2367

<211> 474

<212> DNA

<213> Homo sapiens

<400> 2367

ngtgcacggg agaagacgtg cgcgcagttc ggcggaacct atccgggttc ggccggcagt
 60
 ggggggtcacg agctcaccga cgcgcgcgcg ttcgcctcgt ggggcgctga tttcgtcaaa
 120
 tacgatcggg gctccgggtga ctccgcgcac gacgaccagg tcgcctcgtt caccgcgatg
 180
 cgtgacgcaa tccgatccac cggacgcccc atggtgtaca gcatcaaccc caacagcgaa
 240
 tcgccggatc ggtccggagc ccaattcgat tggggcggtg tggcaaccat gacacgtacc
 300
 accaacgaca tctcgccggg gtggaccact cggccggccg gtgccgatgc gacaccggca
 360

tcgggggtatc aggggatccg cgacatcatc gacgccgtgg ccccgatcgg cgcacggggt
 420
 gcgacggcag cttcgtcgac atggacatgc tcgtcgtcgg tgcggcaac gcgt
 474

<210> 2368
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 2368
 Xaa Ala Arg Glu Lys Thr Cys Ala Gln Phe Gly Gly Thr Tyr Pro Gly
 1 5 10 15
 Ser Ala Gly Ser Gly Gly His Glu Leu Thr Asp Ala Arg Ala Phe Ala
 20 25 30
 Ser Trp Gly Val Asp Phe Val Lys Tyr Asp Arg Cys Ser Gly Asp Ser
 35 40 45
 Ala His Asp Asp Gln Val Ala Ser Phe Thr Ala Met Arg Asp Ala Ile
 50 55 60
 Arg Ser Thr Gly Arg Pro Met Val Tyr Ser Ile Asn Pro Asn Ser Glu
 65 70 75 80
 Ser Pro Asp Arg Ser Gly Ala Gln Phe Asp Trp Gly Gly Val Ala Thr
 85 90 95
 Met Thr Arg Thr Thr Asn Asp Ile Ser Pro Val Trp Thr Thr Arg Pro
 100 105 110
 Ala Gly Ala Asp Ala Thr Pro Ala Ser Gly Tyr Gln Gly Ile Arg Asp
 115 120 125
 Ile Ile Asp Ala Val Ala Pro Ile Gly Ala Arg Val Ala Thr Ala Ala
 130 135 140
 Ser Ser Thr Trp Thr Cys Ser Ser Ser Val Ser Ala Thr Arg
 145 150 155

<210> 2369
 <211> 408
 <212> DNA
 <213> Homo sapiens

<400> 2369
 ctgaatggca ggcaggcaga ggccaccaga gccagccccc cgagaagccc tgctgagcca
 60
 aaggggagcg ccctgggacc taacccagag ccccatctca ccttcccccg ttctttcaaa
 120
 gtgcctcccc caaccccagt caggacttcg tccatcccag ttcaggaagc acaagaggct
 180
 cccgaaagga agagggggcc accaagaagg ctcccagccg actcccactg cctcccagct
 240
 tccacatccg ccccgctcc caggtctacc cagacagggc ccccgagcnc agactgcct
 300
 ggggagctca aggccacagc accagccagc ccaaggcttg gccagtccca gtcccaagca
 360
 gatgaacgag ctgggactcc gcctccagcc cctcccctgc cccctcct
 408

<210> 2370

<211> 136
 <212> PRT
 <213> Homo sapiens

<400> 2370
 Leu Asn Gly Arg Gln Ala Glu Ala Thr Arg Ala Ser Pro Pro Arg Ser
 1 5 10 15
 Pro Ala Glu Pro Lys Gly Ser Ala Leu Gly Pro Asn Pro Glu Pro His
 20 25 30
 Leu Thr Phe Pro Arg Ser Phe Lys Val Pro Pro Pro Thr Pro Val Arg
 35 40 45
 Thr Ser Ser Ile Pro Val Gln Glu Ala Gln Glu Ala Pro Glu Arg Lys
 50 55 60
 Arg Gly Pro Pro Arg Arg Leu Pro Ala Asp Ser His Cys Leu Pro Ala
 65 70 75 80
 Ser Thr Ser Ala Pro Pro Pro Arg Ser Thr Gln Thr Gly Pro Pro Ser
 85 90 95
 Xaa Asp Cys Pro Gly Glu Leu Lys Ala Thr Ala Pro Ala Ser Pro Arg
 100 105 110
 Leu Gly Gln Ser Gln Ser Gln Ala Asp Glu Arg Ala Gly Thr Pro Pro
 115 120 125
 Pro Ala Pro Pro Leu Pro Pro Pro
 130 135

<210> 2371
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 2371
 gaattcgggtg tgcgatgcga gcctgcagcc tgggagcaga gacaaggagc aaaggcgggtg
 60
 agaggggttg cagggcaccc agttacagct ggagctgcag gggacccatc cctcgagaga
 120
 ggcaggcact agtcatgagg caagagatgc ctcagaagag gatgctggcc gcagggcaca
 180
 gcagagaggg agatagcccg gggcactcct caggaccggg cctcagggga cagcaaacaa
 240
 gattcctgat agacgcgccc aggtcatgcc ttttcagtgg tgtgagccag gttctggcgt
 300
 caggcggggcc aagggttttca tgcagcn
 327

<210> 2372
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 2372
 Met Arg Ala Cys Ser Leu Gly Ala Glu Thr Arg Ser Lys Gly Gly Glu
 1 5 10 15
 Arg Val Ala Arg Ala Pro Ser Tyr Ser Trp Ser Cys Arg Gly Pro Ile
 20 25 30
 Pro Arg Glu Arg Gln Ala Leu Val Met Arg Gln Glu Met Pro Gln Lys

```

      35          40          45
Arg Met Leu Ala Ala Gly His Ser Arg Glu Gly Asp Ser Pro Gly His
  50          55          60
Ser Ser Gly Pro Gly Leu Arg Gly Gln Gln Thr Arg Phe Leu Ile Asp
  65          70          75          80
Ala Pro Arg Ser Cys Leu Phe Ser Gly Val Ser Gln Val Leu Ala Ser
      85          90          95
Gly Gly Pro Arg Phe Ser Cys Ser
      100

```

<210> 2373

<211> 591

<212> DNA

<213> Homo sapiens

<400> 2373

```

gaattctgac attcaggaag tcaattgcag aaggtttaac caagttgatt ctgttttacc
60
aaatcctgtc tattctgaaa agcggccaat gccagactca tctcatgatg tgaaagttct
120
cacttcaaag acatcagctg ttgagatgac ccaggcagta ttgaatactc agcttttcac
180
agaaaaatgtt accaaaagttg agcaaaattc accagcagtt tgtgaaacaa tttctgttcc
240
caagtccatg tccactgagg aatataaatc aaaaattcaa aatgaaaata tgctacttct
300
cgctttgctt tcacaggcac gtaagactca gaagacagta ttaaaagatg ctaatcaaac
360
tattcaggat tctaaaccag acagttgtga aatgaatcca aatacccaaa tgactggtaa
420
ccaactgaat ttgaagaaca tggaaactcc aagtacttct aatgtaagtg gcagggtttt
480
ggacaactcc ttttgcatg gacaagaatc ctcaacaaaa ggaatgcctg ctaaaagtga
540
cagtagctgt tccatggaag tgctagcaac ctgtctttcc ctgtggaaaa a
591

```

<210> 2374

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2374

```

Met Pro Asp Ser Ser His Asp Val Lys Val Leu Thr Ser Lys Thr Ser
  1          5          10          15
Ala Val Glu Met Thr Gln Ala Val Leu Asn Thr Gln Leu Ser Ser Glu
      20          25          30
Asn Val Thr Lys Val Glu Gln Asn Ser Pro Ala Val Cys Glu Thr Ile
      35          40          45
Ser Val Pro Lys Ser Met Ser Thr Glu Glu Tyr Lys Ser Lys Ile Gln
      50          55          60
Asn Glu Asn Met Leu Leu Leu Ala Leu Leu Ser Gln Ala Arg Lys Thr
  65          70          75          80
Gln Lys Thr Val Leu Lys Asp Ala Asn Gln Thr Ile Gln Asp Ser Lys

```

```

      85              90              95
Pro Asp Ser Cys Glu Met Asn Pro Asn Thr Gln Met Thr Gly Asn Gln
      100              105              110
Leu Asn Leu Lys Asn Met Glu Thr Pro Ser Thr Ser Asn Val Ser Gly
      115              120              125
Arg Val Leu Asp Asn Ser Phe Cys Ser Gly Gln Glu Ser Ser Thr Lys
      130              135              140
Gly Met Pro Ala Lys Ser Asp Ser Ser Cys Ser Met Glu Val Leu Ala
      145              150              155              160
Thr Cys Leu Ser Leu Trp Lys
      165

```

<210> 2375

<211> 535

<212> DNA

<213> Homo sapiens

<400> 2375

```

ntggccatgt cgttgctcag cagcggcacc ctggacagtt accttgagcg tcacaaacaa
60
ctggacgcca tgcatgct gcaattcttc gccctcgacg aagaaaaccc cgccagcatc
120
tataactgcc tgcgcgccgc gcggggcaat gcccacgcgg tacgcgggcg gatcaccgcc
180
gacatgtggg aaaacctcaa cgccacctgg ctggaaatgc gcagcatcgc cgccgggggc
240
ctggcccggc atggcatcag ccacttctgt gactgggtca agcagcggtc gcacctgttc
300
cgccggggcaa cctcgggcac catcatgcgc aacgacgctt accggtttat tcgcctgggc
360
acgtttgtcg agcgcgcgga caacaccctg cgcctgctgg atgcgcgcta cgaaatgttt
420
ggtgaggagt cggaagaggt cagcgacctg tcggcacgcg ggtattacca gtggagcgcc
480
ctgctgcggg ccttgctcgc attcgaggcg tataccgaac tgtaccccaa cgcgt
535

```

<210> 2376

<211> 178

<212> PRT

<213> Homo sapiens

<400> 2376

```

Xaa Ala Met Ser Leu Leu Ser Ser Gly Thr Leu Asp Ser Tyr Leu Glu
1          5          10          15
Arg His Lys Gln Leu Asp Ala Met Arg Met Leu His Phe Phe Ala Leu
20         25         30
Asp Glu Glu Asn Pro Ala Ser Ile Tyr Asn Cys Leu Arg Ala Ala Arg
35         40         45
Gly Asn Ala His Ala Val Arg Gly Arg Ile Thr Ala Asp Met Trp Glu
50         55         60
Asn Leu Asn Ala Thr Trp Leu Glu Met Arg Ser Ile Ala Ala Gly Gly
65         70         75         80
Leu Ala Arg His Gly Ile Ser His Phe Cys Asp Trp Val Lys Gln Arg

```

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | 85 | | | | | | 90 | | | | | 95 | | | | |
| Ser | His | Leu | Phe | Arg | Gly | Ala | Thr | Ser | Gly | Thr | Ile | Met | Arg | Asn | Asp | | | | |
| | | | 100 | | | | | | 105 | | | | | 110 | | | | | |
| Ala | Tyr | Arg | Phe | Ile | Arg | Leu | Gly | Thr | Phe | Val | Glu | Arg | Ala | Asp | Asn | | | | |
| | | 115 | | | | | 120 | | | | | | 125 | | | | | | |
| Thr | Leu | Arg | Leu | Leu | Asp | Ala | Arg | Tyr | Glu | Met | Phe | Gly | Glu | Glu | Ser | | | | |
| | | 130 | | | | 135 | | | | | | 140 | | | | | | | |
| Glu | Glu | Val | Ser | Asp | Leu | Ser | Ala | Arg | Gly | Tyr | Tyr | Gln | Trp | Ser | Ala | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |
| Leu | Leu | Arg | Ala | Leu | Ser | Ser | Phe | Glu | Ala | Tyr | Thr | Glu | Leu | Tyr | Pro | | | | |
| | | | | 165 | | | | | 170 | | | | | | 175 | | | | |

Asn Ala

<210> 2377

<211> 622

<212> DNA

<213> Homo sapiens

<400> 2377

acgcgtgaag ggttgaggct tcagaagtgg tagggaagaa cagaagctcc cttctgaggg
60
agcaccagg agatgaaagg aaccaatcct ggggtggtcct gcaccaggct tatcaacccc
120
tgacagacaa atggaaaact tctgtgatgg tgggacatga aaaaatattt cacccttctg
180
ataaaatgga accagcagat agaagtagga atttttctgt taggtgaaat gtttttaaaa
240
atatgtatac aggaaaaagc ataaaacagt attgactggc aaacatagaa ctggaatgta
300
aatataatgt tctttgccct gaatgattta agtggcatga taaaactcat gccacagact
360
gggtaagaca aggaatctaa tccactctaa aaagaagaaa agcatagtaa aattctcctt
420
agagttagaa ttattaatag ttctatctta ctatttaatt taatcatagt taatgatgag
480
aatttcttaa atttaaagct tctgatgatg cttaaattgc atttctcatg attccttaaa
540
acaatttttg taaattctat tcctaggacc ttctgctttc agaaaaatta atgtcttgta
600
ttcttcgtat tggaggagat ct
622

<210> 2378

<211> 109

<212> PRT

<213> Homo sapiens

<400> 2378

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Met | Ser | Phe | Ile | Met | Pro | Leu | Lys | Ser | Phe | Arg | Ala | Lys | Asn | Ile | Ile | | | | |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | | | | | |
| Phe | Thr | Phe | Gln | Phe | Tyr | Val | Cys | Gln | Ser | Ile | Leu | Phe | Tyr | Ala | Phe | | | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | | | |

Ser Cys Ile His Ile Phe Lys Asn Ile Ser Pro Asn Arg Lys Ile Pro

```

      35              40              45
Thr Ser Ile Cys Trp Phe His Phe Ile Arg Arg Val Lys Tyr Phe Phe
  50              55              60
Met Ser His His His Arg Ser Phe Pro Phe Val Cys Gln Gly Leu Ile
  65              70              75              80
Ser Leu Val Gln Asp His Pro Gly Leu Val Pro Phe Ile Ser Trp Val
      85              90              95
Leu Pro Gln Lys Gly Ala Ser Val Leu Pro Tyr His Phe
      100              105

```

<210> 2379

<211> 342

<212> DNA

<213> Homo sapiens

<400> 2379

```

tcatgacctg gagacttcgg aaactcaaca agactgcagg gcacccaggg gcaccagccc
  60
cggtcaccgc agaggatcag tgcactttgc catctggcag atcaactcat ggcacaactg
  120
ggaaacataa cattcacgct tgtgaaccga gacgccatac cccagcgggtg ccgagagcaa
  180
cagtgtctgtg caggtctggg cagatgaggg cctccaggac acgaggactc actcgctcac
  240
cctgcccact gggcagctgc tcgccactcc cctcctggag ggcaggacgg acaccacaca
  300
cacacacaag cagggaaagct gtgcagcagt ggggagaaag ca
  342

```

<210> 2380

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2380

```

Met Thr Trp Arg Leu Arg Lys Leu Asn Lys Thr Ala Gly His Pro Gly
  1              5              10              15
Ala Pro Ala Pro Val Thr Ala Glu Asp Gln Cys Thr Leu Pro Ser Gly
      20              25              30
Arg Ser Thr His Gly Thr Thr Gly Lys His Asn Ile His Ala Cys Glu
      35              40              45
Pro Arg Arg His Thr Pro Ala Val Pro Arg Ala Thr Val Leu Cys Arg
      50              55              60
Ser Gly Gln Met Arg Ala Ser Arg Thr Arg Gly Leu Thr Arg Ser Pro
  65              70              75              80
Cys Pro Leu Gly Ser Cys Ser Pro Leu Pro Ser Trp Arg Ala Gly Arg
      85              90              95
Thr Pro His Thr His Thr Ser Arg Glu Ala Val Gln Gln Trp Gly Glu
      100              105              110
Ser

```

<210> 2381

<211> 434

<212> DNA

<213> Homo sapiens

<400> 2381

```

gtgcaccctg gccatatgga cgccagcgac gtcggcgctct tgcgtgacgt ggaaccgatc
60
ggcccaagta gagagatgga ttttgaatgg tgacgatgta cccgccgcag caagtggatg
120
ccgtctctctt tgacatggac ggaaccctgc tcaacaccct gccggcctgg tgcgtggcat
180
ctgagcatct gtggggcact tctctggctg acgctgacag cgccaagggtt gacgggggca
240
ccgtcgacga cgtcgttgag ctgtatctgc gagaccaccc tcaggcagat ccccaggcca
300
ccatcgagcg tttcatggac atccttgacg ccaacctggc tggccaacacc gagccgatgc
360
ccggagctga ccgcctcgtg aagaggctgt caggctcatgt acccatcgct gtggtgtcga
420
attccccgac gcgt
434

```

<210> 2382

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2382

```

Met Val Thr Met Tyr Pro Pro Gln Gln Val Asp Ala Val Leu Phe Asp
1      5      10      15
Met Asp Gly Thr Leu Leu Asn Thr Leu Pro Ala Trp Cys Val Ala Ser
20      25      30
Glu His Leu Trp Gly Thr Ser Leu Ala Asp Ala Asp Ser Ala Lys Val
35      40      45
Asp Gly Gly Thr Val Asp Asp Val Val Glu Leu Tyr Leu Arg Asp His
50      55      60
Pro Gln Ala Asp Pro Gln Ala Thr Ile Glu Arg Phe Met Asp Ile Leu
65      70      75      80
Asp Ala Asn Leu Ala Gly His Thr Glu Pro Met Pro Gly Ala Asp Arg
85      90      95
Leu Val Lys Arg Leu Ser Gly His Val Pro Ile Ala Val Val Ser Asn
100     105     110
Ser Pro Thr Arg
115

```

<210> 2383

<211> 393

<212> DNA

<213> Homo sapiens

<400> 2383

```

acgcgtgcgt tcagatgagc gccggacgaa actcctcggc cgcttcggca ggcattggatt
60
catgtcggca cgggcctttg aacaggatcg ccgtcgcgtg gctatccgcc gcgggtgggg
120

```

cagaaaaacgc ccactctccc ttccccaggc gccggccgctc gagtcgtcta cgcaacgcac
 180
 gtctacatag gtgacttttt cataccccca ctttcgtact cggatgggct cggcgtgctc
 240
 gatgtcggca cgaaaaatta aatgcactga atgcggttg tgcacagga tgcattctgt
 300
 ctttcttgat gccaccacc ttgttacata ttctgccatg caaaacacct tgtgattttt
 360
 ggcggagtgc aacatggtat gtgtatgcca ctg
 393

<210> 2384

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2384

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Leu | His | Ser | Ala | Lys | Asn | His | Lys | Val | Phe | Cys | Met | Ala | Glu | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Thr | Arg | Trp | Val | Ala | Ser | Arg | Lys | Thr | Arg | Cys | Ile | Leu | Cys | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Asn | Pro | His | Ser | Val | His | Leu | Ile | Phe | Arg | Ala | Asp | Ile | Glu | His | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Pro | Ile | Arg | Val | Arg | Lys | Trp | Gly | Tyr | Glu | Lys | Val | Thr | Tyr | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Asp | Val | Arg | Cys | Val | Asp | Asp | Ser | Thr | Ala | Gly | Ala | Trp | Gly | Arg | Glu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Gly | Arg | Phe | Leu | Pro | His | Pro | Arg | Arg | Ile | Ala | Thr | Arg | Arg | Arg |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ser | Cys | Ser | Lys | Ala | Arg | Ala | Asp | Met | Asn | Pro | Cys | Leu | Pro | Lys | Arg |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Pro | Arg | Ser | Phe | Val | Arg | Arg | Ser | Ser | Glu | Arg | Thr | Arg | | | |
| | 115 | | | | | | 120 | | | | | 125 | | | |

<210> 2385

<211> 347

<212> DNA

<213> Homo sapiens

<400> 2385

acgcgttccc aaagtaggat ggctgggata gagggaaagg acatctttca ggcttggtat
 60
 gcactgtgct gtggactctt gttgtggggt cctaggtctg cccagcattt tggggttcac
 120
 cccgtgacct tctacgggtt tccatgcccc cagcaccacg tccatcatca tttctggggg
 180
 cccctcacct cagagagcct gcttctctatg actgcgtggg ccagctggag aaggacgacc
 240
 caagaccctt caagtttctg tgtcctgacc ccaagcatag gcctgagtgc tcctggggcc
 300
 caagggcctt tacgcactac tctctggggc ccactgtctg cactctt
 347

<210> 2386

<211> 109
 <212> PRT
 <213> Homo sapiens

<400> 2386
 Met Ala Gly Ile Glu Gly Lys Asp Ile Phe Gln Ala Cys Tyr Ala Leu
 1 5 10 15
 Cys Cys Gly Leu Leu Leu Trp Gly Pro Arg Ser Ala Gln His Phe Gly
 20 25 30
 Val His Pro Val Thr Leu Tyr Gly Phe Pro Cys Pro Gln His His Val
 35 40 45
 His His His Phe Trp Gly Pro Leu Thr Ser Glu Ser Leu Leu Pro Met
 50 55 60
 Thr Ala Trp Ala Ser Trp Arg Arg Thr Thr Gln Asp Pro Ser Ser Phe
 65 70 75 80
 Cys Val Leu Thr Pro Ser Ile Gly Leu Ser Ala Pro Gly Ala Gln Gly
 85 90 95
 Pro Leu Arg Thr Thr Leu Trp Gly Pro Leu Ser Ala Leu
 100 105

<210> 2387
 <211> 715
 <212> DNA
 <213> Homo sapiens

<400> 2387
 ncggccgcac ttcaccttac ggaggggaga taatgagatc aattagaggc gccgtcaccg
 60
 cgccggagac agctgccgcc gcatagtaat caccgcggg ctgggtgcgc gggggctccc
 120
 cgctacctgc gcgcctgctg ctcccaccac gcggcaccga cccgggcgcg ccccgggccc
 180
 ctgtccgcag cccacagcca caccgcgcac cctacaccct ccttgcgcct ctgctgggga
 240
 gctcaccccc tccactcgca cagtgcgctg cgggccgggg tgtgggaggt cccgggactt
 300
 ggggtgtgag tgcctgtgtg ggggtagggg caggtgtccg cttgtgcgca tatgggcatg
 360
 agtgtacatg gcgtgtgcct ggagatgggc gagtgcaggc tggaatgtgc cggcgtggca
 420
 cgtgtgtggg cccaaataga tgcgtgtgtg atcacatgtt gtgttcgtgt ttgcacctcg
 480
 tgtgcctgtg tgtccgtatt tgagtgttta caggaatgtg ggtgggtgagt acccgatatg
 540
 ggggtgcatc ycacttgtgc gtgtgtgtgt gtaggcgcgt gtgtgtgcgt gtgtgtgtta
 600
 ngggatacgt gtagatgtgc attagtgtga ctgtgtgtgc tcatgtgcct gtgcacgtgt
 660
 gtttgagggt tgtgtgcatg ggtagcgtct gtgagagcca tgtgtatatc tgcag
 715

<210> 2388
 <211> 58
 <212> PRT

<213> Homo sapiens

<400> 2388

```
Met Gly Met Ser Val His Gly Val Cys Leu Glu Met Gly Glu Cys Arg
 1           5           10           15
Leu Glu Cys Ala Gly Val Ala Arg Val Trp Ala Gln Ile Asp Ala Cys
      20           25           30
Val Ile Thr Cys Cys Val Arg Val Cys Thr Ser Cys Ala Cys Val Ser
      35           40           45
Val Phe Glu Cys Leu Gln Glu Cys Gly Trp
      50           55
```

<210> 2389

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2389

```
ntcaccctgc cgccggaagg ttgctcgtac cgcattggcca tcgtcaccat gaagaagtcg
60
tatccggggcc acgccaagcg cgtcatgttg ggtgtctggt cgttttttgcg acagtccatg
120
tataccaagt tcgttatcgt caccgacgac gatatacaacg cccgcgactg gaacgacgtg
180
atctggggcca tcaccacgcg catggacccc aagcgcgaca cggatgatgat cgataaacacg
240
ccgatcgact acctcgactt cgcctcgcgg gtgtccggcc tgggttcgaa gatggggctc
300
gatccacgcg acaaattggcc cggccacacc acccgn
336
```

<210> 2390

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2390

```
Xaa Thr Leu Pro Pro Glu Gly Cys Ser Tyr Arg Met Ala Ile Val Thr
 1           5           10           15
Met Lys Lys Ser Tyr Pro Gly His Ala Lys Arg Val Met Leu Gly Val
      20           25           30
Trp Ser Phe Leu Arg Gln Phe Met Tyr Thr Lys Phe Val Ile Val Thr
      35           40           45
Asp Asp Asp Ile Asn Ala Arg Asp Trp Asn Asp Val Ile Trp Ala Ile
      50           55           60
Thr Thr Arg Met Asp Pro Lys Arg Asp Thr Val Met Ile Asp Asn Thr
      65           70           75           80
Pro Ile Asp Tyr Leu Asp Phe Ala Ser Pro Val Ser Gly Leu Gly Ser
      85           90           95
Lys Met Gly Leu Asp Pro Thr His Lys Trp Pro Gly His Thr Thr Arg
      100           105           110
```

<210> 2391

<211> 388

<212> DNA

<213> Homo sapiens

<400> 2391

gtcgactaac ctgcgtacag cgcgccacct acgttttagtc gcgaagcgtg tccggctccat
 60
 gttcattccg gagctacacc atgaataaag tactacctga tccacccatc gatcccgcga
 120
 aagaccgcgt cgctttcaac cgcgccatcg accattacct gcctaccag ggcttccact
 180
 gcgtcaacga agacctgagt ttccaagacg ccctgctcta caccgccagc ctgctcgaca
 240
 gtgcctctgc caccgcgtg gattgcggtg agctgctgca aagccctgaa cgggcgaaga
 300
 tcctggccgt gtggcatttg ctggaaattg caaaaaccac cgtagatcgc tcccccatcg
 360
 agtgcctgac cgcaccaaag ccctgcct
 388

<210> 2392

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2392

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Lys | Val | Leu | Pro | Asp | Pro | Pro | Ile | Asp | Pro | Ala | Lys | Asp | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ala | Phe | Asn | Arg | Ala | Ile | Asp | His | Tyr | Leu | Pro | Thr | Gln | Gly | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Cys | Val | Asn | Glu | Asp | Leu | Ser | Phe | Glu | Asp | Ala | Leu | Leu | Tyr | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Leu | Leu | Asp | Ser | Ala | Ser | Ala | Thr | Ala | Leu | Asp | Cys | Gly | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Leu | Gln | Ser | Pro | Glu | Arg | Ala | Lys | Ile | Leu | Ala | Val | Trp | His | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Glu | Ile | Ala | Lys | Thr | Thr | Val | Asp | Arg | Phe | Pro | Ile | Glu | Cys | Leu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Ala | Pro | Lys | Pro | Cys | | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

<210> 2393

<211> 411

<212> DNA

<213> Homo sapiens

<400> 2393

aacctgtcta ccgaggacca ggccgagcag gtagagattg tgaagcgctc tgagtccggc
 60
 atggtcaccg accccatcac tgcgcgcccc gatatgacca tcggggaagt agacgcgctg
 120
 tgcgcccgt tccgatctc cggcctgccg gtggtagacg aggacggcac cctgatgggc
 180
 atttgacca cccgcgatat gcgcttcgag cctgactttg accgcaaggt cagcgaggtc
 240

atgacggcta tgccgcttgt tgttgcgcg cagggtgtat ctaagaagga agccctcgaa
 300
 ctgctctcgg ccaataaggt ggaaaagctg cccatcgctg atgcggataa taagctcacc
 360
 ggcctgatta ccgtcaagga ctttgtcaag accgagcagt accccaacgc g
 411

<210> 2394

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2394

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Ser | Thr | Glu | Asp | Gln | Ala | Glu | Gln | Val | Glu | Ile | Val | Lys | Arg |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Glu | Ser | Gly | Met | Val | Thr | Asp | Pro | Ile | Thr | Ala | Arg | Pro | Asp | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ile | Gly | Glu | Val | Asp | Ala | Leu | Cys | Ala | Arg | Phe | Arg | Ile | Ser | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Pro | Val | Val | Asp | Glu | Asp | Gly | Thr | Leu | Met | Gly | Ile | Cys | Thr | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Asp | Met | Arg | Phe | Glu | Pro | Asp | Phe | Asp | Arg | Lys | Val | Ser | Glu | Val |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Met | Thr | Ala | Met | Pro | Leu | Val | Val | Ala | Arg | Glu | Gly | Val | Ser | Lys | Lys |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Glu | Ala | Leu | Glu | Leu | Leu | Ser | Ala | Asn | Lys | Val | Glu | Lys | Leu | Pro | Ile |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Val | Asp | Ala | Asp | Asn | Lys | Leu | Thr | Gly | Leu | Ile | Thr | Val | Lys | Asp | Phe |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Val | Lys | Thr | Glu | Gln | Tyr | Pro | Asn | Ala | | | | | | | |
| | 130 | | | | | 135 | | | | | | | | | |

<210> 2395

<211> 362

<212> DNA

<213> Homo sapiens

<400> 2395

aagctttcag aggagtttgc taaagtgtta aggatttgca tattttcaac tttagtcata
 60
 tctaagtgcc ccaataaaac agcgcgggcg attgggggct ggctttcatc aacaactaac
 120
 ttagcaatat taatctgacc ttttcttggt gattgggcat ttagtaataa tgcggggcca
 180
 atatcatcat actttccaaa ttttttgat ttttagaca tcaactgaag ttgtgaccat
 240
 ttactgtctt tgtcttgatg gcaatctaaa caaacatctc ttgtattaag ttgttcactt
 300
 acccaaggat taggcactct aaaggcatga tcgctcgat catcgactcc catgtaacgc
 360
 gt
 362

<210> 2396

<211> 117
 <212> PRT
 <213> Homo sapiens

<400> 2396
 Met Gly Val Asp Asp Arg Arg Asp His Ala Phe Arg Val Pro Asn Pro
 1 5 10 15
 Trp Val Ser Glu Gln Leu Asn Thr Arg Asp Val Cys Leu Asp Cys His
 20 25 30
 Gln Asp Lys Asp Ser Lys Trp Ser Gln Leu Gln Leu Met Ser Lys Lys
 35 40 45
 Ser Lys Ile Phe Gly Lys Tyr Asp Asp Ile Gly Pro Ala Leu Leu Leu
 50 55 60
 Asn Ala Gln Ser Pro Gly Lys Gly Gln Ile Asn Ile Ala Lys Leu Val
 65 70 75 80
 Val Asp Glu Ser Gln Pro Pro Met Arg Arg Ala Val Leu Leu Gly His
 85 90 95
 Leu Asp Met Thr Lys Val Glu Asn Met Gln Ile Leu Asn Thr Leu Ala
 100 105 110
 Asn Ser Ser Glu Ser
 115

<210> 2397
 <211> 449
 <212> DNA
 <213> Homo sapiens

<400> 2397
 nacagcacac tccgcctcct ccgacgatca tagctttcac gtcggacatg atcccccgcc
 60
 tagtgtacta ctggtccttc tccgtccctc cctacgggga ccacacttcc tacaccatgg
 120
 aagggtacat caacaacact ctctccatct tcaaagtcgc agacttcaaa aacaaagca
 180
 agggaaaccc gtactctgac ctgggtaacc ataccacatg caggtatcgt gatttccgat
 240
 acccacctgg acacccccag gagtataaac acaacatcta ctattggcat gtgattgcag
 300
 ccaagctggc ttttatcatt gtcattggagc acgtcatcta ctctgtgaaa tttttcattt
 360
 catatgcaat tcccgatgta tcaaagcgca caaagagcaa gatccagaga gaaaaatacc
 420
 taacccaaaa gcttcttcat gagaatcac
 449

<210> 2398
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 2398
 Cys Thr Thr Gly Pro Ser Pro Ser Leu Pro Thr Gly Thr Thr Leu Pro
 1 5 10 15
 Thr Pro Trp Lys Gly Thr Ser Thr Thr Leu Ser Pro Ser Ser Lys Ser

```

          20          25          30
Gln Thr Ser Lys Thr Lys Ala Arg Glu Thr Arg Thr Leu Thr Trp Val
          35          40          45
Thr Ile Pro His Ala Gly Ile Val Ile Ser Asp Thr His Leu Asp Thr
          50          55          60
Pro Arg Ser Ile Asn Thr Thr Ser Thr Ile Gly Met
65          70          75

```

<210> 2399
 <211> 344
 <212> DNA
 <213> Homo sapiens

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<400> 2399
acgcgtcatg cttcacgaaa cgggtcacgc gcttcattac caagcagctg gcaaacacaa
60
cttgtatttc gagcgggttg cgccagtcga gatcatggag ttcgtggcct actgcttgca
120
gtttctgacg atcgagcgcc tggccatgtc aggggaactt tcgggtaaag aacaggaact
180
agtcaaaccc tttgctggtc cggccaggct tggagggggt cgaaaaccta caacgccaca
240
aaacgggttc agcactgggt ttataaacag cctaaaatcc cgacaagtaa agaactcgat
300
accgtatggc ttgagatgcg acacacgctc ggggtggatt ggctc
344

```

<210> 2400
 <211> 112
 <212> PRT
 <213> Homo sapiens

```

<400> 2400
Met Leu His Glu Thr Gly His Ala Leu His Tyr Gln Ala Ala Gly Lys
1          5          10          15
His Asn Leu Tyr Phe Glu Arg Val Ala Pro Val Glu Ile Met Glu Phe
          20          25          30
Val Ala Tyr Cys Leu Gln Phe Leu Thr Ile Glu Arg Leu Ala Met Ser
          35          40          45
Gly Glu Leu Ser Gly Lys Glu Gln Glu Leu Val Lys Pro Phe Ala Gly
          50          55          60
Pro Ala Arg Leu Gly Gly Val Arg Lys Pro Thr Thr Pro Gln Asn Gly
65          70          75          80
Ser Ser Thr Gly Phe Ile Asn Ser Leu Lys Ser Arg Gln Val Lys Asn
          85          90          95
Ser Ile Pro Tyr Gly Leu Arg Cys Asp Thr Arg Ser Gly Trp Ile Gly
          100          105          110

```

<210> 2401
 <211> 479
 <212> DNA
 <213> Homo sapiens

<400> 2401

nntaccgagg taaaactcga tagcctcggg gtcaccgacc agatgcgctc tgggcgctgc
 60
 tggatgtttg ccgcgctcaa cgtattccgc caccgcgagg ccaaggagct caacatcgat
 120
 gactttgagt ttctctttac ctacctgcag tacttcgaca aactagagcg cgccaacttc
 180
 gcgctcaacc aactgctgga tctcaccgaa gacggcaccg actgggatga ccgcgacgtg
 240
 gctacttccc tcgagctcac aggcgacgac ggcggctggg ggtcattttt caccaacctc
 300
 gtggacaagt acggcgagct cccggccgag gtcattgcctg aggtgcactc gtccggccac
 360
 accgaccaga tgaatcgaga tategccacc atcatccgcc gcgccgcgca ccgtgcggtg
 420
 gaaggcgagg gggatcgagg gggcatcgctc aagcaagccc gccccgatat ccaacgcgt
 479

<210> 2402

<211> 159

<212> PRT

<213> Homo sapiens

<400> 2402

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Thr | Glu | Val | Lys | Leu | Asp | Ser | Leu | Gly | Val | Thr | Asp | Gln | Met | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Gly | Arg | Cys | Trp | Met | Phe | Ala | Ala | Leu | Asn | Val | Phe | Arg | His | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ala | Lys | Glu | Leu | Asn | Ile | Asp | Asp | Phe | Glu | Phe | Ser | Phe | Thr | Tyr |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Leu | Gln | Tyr | Phe | Asp | Lys | Leu | Glu | Arg | Ala | Asn | Phe | Ala | Leu | Asn | Gln |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Leu | Leu | Asp | Leu | Thr | Glu | Asp | Gly | Thr | Asp | Trp | Asp | Asp | Arg | Asp | Val |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Thr | Ser | Leu | Glu | Leu | Thr | Gly | Asp | Asp | Gly | Gly | Trp | Trp | Ser | Phe |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Phe | Thr | Asn | Leu | Val | Asp | Lys | Tyr | Gly | Ala | Val | Pro | Ala | Glu | Val | Met |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Pro | Glu | Val | His | Ser | Ser | Gly | His | Thr | Asp | Gln | Met | Asn | Arg | Asp | Ile |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Ala | Thr | Ile | Ile | Arg | Arg | Ala | Ala | His | Arg | Ala | Val | Glu | Gly | Glu | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Arg | Gly | Gly | Ile | Val | Lys | Gln | Ala | Arg | Pro | Asp | Ile | Gln | Arg | |
| 145 | | | | | 150 | | | | | 155 | | | | | |

<210> 2403

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2403

ntcataaacg gcgataaccc gctggactcg tctgcgggtc acccggaagc ctacccgctg
 60
 gtgcagcgta ttgccgccga gaccggccgt gatatccggt cgctgatcgg tgacgccgag
 120

ttcctcaagc gcctggaccc gaagaagtac accgacgaaa ccttcggtgt gccgaccatc
 180
 accgacatcc tgcaagagct ggaaaaacct ggccgcgacc cgcgtcccga gttcaagacc
 240
 gccgagttcc aggacggtgt tgaagacctc aaggacctgc agccgggcat gatcctcgaa
 300
 ggcggtgtca ccaacgtgac caactttggc gcctttgtgg atatcggcgt gcacacaggac
 360
 ggtttggtgc acatctctgc actttcg
 387

<210> 2404

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2404

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Met | Asn | Gly | Asp | Asn | Pro | Leu | Asp | Ser | Ser | Ala | Val | His | Pro | Glu |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Ala | Tyr | Pro | Leu | Val | Gln | Arg | Ile | Ala | Ala | Glu | Thr | Gly | Arg | Asp | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Ser | Leu | Ile | Gly | Asp | Ala | Ala | Phe | Leu | Lys | Arg | Leu | Asp | Pro | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Tyr | Thr | Asp | Glu | Thr | Phe | Gly | Val | Pro | Thr | Ile | Thr | Asp | Ile | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gln | Glu | Leu | Glu | Lys | Pro | Gly | Arg | Asp | Pro | Arg | Pro | Glu | Phe | Lys | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Glu | Phe | Gln | Asp | Gly | Val | Glu | Asp | Leu | Lys | Asp | Leu | Gln | Pro | Gly |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Met | Ile | Leu | Glu | Gly | Val | Val | Thr | Asn | Val | Thr | Asn | Phe | Gly | Ala | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Asp | Ile | Gly | Val | His | Gln | Asp | Gly | Leu | Val | His | Ile | Ser | Ala | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Ser

<210> 2405

<211> 859

<212> DNA

<213> Homo sapiens

<400> 2405

ttgcaagtaa catcaaaagt catctacaga agcaaaagac aaaaaggccc ctccacctgc
 60
 aaattaaatg gaataatttg ctttatgaga agctcaccat tgggggtcatt cttatttttt
 120
 ctactccac atttactac aaaccaagga aagctccctc atggaccgac atctggtgag
 180
 cttcatctc tcccctggca atgctggcc acctgacacc tggcctccct cctctttcca
 240
 gcaatcctgg taccaacgaa tggctcacca ccaccaccc caatgccag accgcagacc
 300
 tgcattcctc ccatttcaca gcccacaaac caaacggtta ttcattctac ctcccatcct
 360

actcctcacg aatttcttcc accgtagact ctgggtaatt ggactgactg aagcccaggg
 420
 gtcagtttct gtcctaagag cgctccaggt ggctgcaccc tgtgcccaga gccaggcccc
 480
 ctgctatagg ctgctgcac tccccctgca ggtgctgggg acaccgcaac ctcctcctg
 540
 gggacaccta cttgcctttg caggccctcg ggggtcactt ctcccaggaa gccgcctctg
 600
 ggtgaggtaa tatccctcta tcacagcatt ggccacacca cattgcaaac gctgctgggg
 660
 tccactgtct tcaccaatta caccatgagc tccacagact ccaggaccat ggcttctacc
 720
 tctcagttcc cagtgctagc tatggggccc agcacacagg gaacagcagt tcaattaccc
 780
 agttcactga agggcagacc tgggatcata caggagcaa ggaagcttga gcccttcag
 840
 gagaagggga agaacgcgt
 859

<210> 2406

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2406

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Arg | His | Leu | Val | Ser | Leu | His | Leu | Ser | Pro | Gly | Asn | Ala | Trp |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Pro | Pro | Asp | Thr | Trp | Pro | Pro | Ser | Ser | Phe | Gln | Gln | Ser | Trp | Tyr | Gln |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Arg | Met | Ala | His | His | His | Pro | Pro | Gln | Cys | Pro | Asp | Arg | Arg | Pro | Ala |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Phe | Leu | Pro | Ser | His | Ser | Pro | Lys | Ser | Lys | Pro | Leu | Phe | Ile | Leu | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Ile | Leu | Leu | Leu | Thr | Asn | Phe | Phe | His | Arg | Arg | Leu | Trp | Leu | Ile |
| | 65 | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Leu | Thr | Glu | Ala | Gln | Gly | Ser | Val | Ser | Val | Leu | Arg | Ala | Leu | Gln |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Ala | Ala | Pro | Cys | Ala | Gln | Ser | Gln | Ala | Pro | Cys | Tyr | Arg | Leu | Ala |
| | | | 100 | | | | | 105 | | | | 110 | | | |
| Ala | Leu | Pro | Leu | Gln | Val | Leu | Gly | Thr | Pro | Gln | Pro | Ser | Ser | Trp | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Leu | Leu | Ala | Phe | Ala | Gly | Pro | Arg | Gly | Ser | Leu | Leu | Pro | Gly | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Leu | Trp | Val | Arg | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 2407

<211> 303

<212> DNA

<213> Homo sapiens

<400> 2407

nacgcgtggt ttatcttcag catggtgatc gcgattgggt tagccgttat ggctgcggtc
 60

gtattcatcg agcaaggcca gcgacgtatc ccggtgcagt acgccaagcg gatggtgggg
 120
 cgccgaatgt ttggtggctc gacgacgtac attccgctca aggtaaacca atctggcgctt
 180
 atccccgtca tctttgcctc gtcgatcctg taccttccgg tgctctacgc aactttccgg
 240
 ccgcagacgt ccgcggcaaa gtggatcggg cactacttca cgcgcggtga ccatccggtg
 300
 tac
 303

<210> 2408

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2408

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Trp | Phe | Ile | Phe | Ser | Met | Val | Ile | Ala | Ile | Gly | Leu | Ala | Val |
| 1 | | | 5 | | | | | | 10 | | | | 15 | | |
| Met | Ala | Ala | Val | Val | Phe | Ile | Glu | Gln | Gly | Gln | Arg | Arg | Ile | Pro | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Tyr | Ala | Lys | Arg | Met | Val | Gly | Arg | Arg | Met | Phe | Gly | Gly | Ser | Thr |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Thr | Tyr | Ile | Pro | Leu | Lys | Val | Asn | Gln | Ser | Gly | Val | Ile | Pro | Val | Ile |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Phe | Ala | Ser | Ser | Ile | Leu | Tyr | Leu | Pro | Val | Leu | Tyr | Ala | Thr | Phe | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Pro | Gln | Thr | Ser | Ala | Lys | Trp | Ile | Gly | His | Tyr | Phe | Thr | Arg | Gly | |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asp | His | Pro | Val | Tyr | | | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

<210> 2409

<211> 322

<212> DNA

<213> Homo sapiens

<400> 2409

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 60
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 120
 cttccggcca aatgaccctc cctaggctac caagaccctg gcctaagggg agccgaggtc
 180
 tcggcccgac tgcagacgcc cgcaccctga ctccagatgc ctccgagga tccaggtggg
 240
 ccctgagggg cctgctgtgg ctttgttctt gttggctggg ctgggggtct gacctggtga
 300
 gggacatgag tgtcagtgtg gg
 322

<210> 2410

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2410

```

Met Val Ser Ser Pro His Cys Val Ser Pro Glu Ser Asn Trp Arg Pro
 1           5           10           15
Ser Asp Thr Thr Ser Arg Pro Asn Arg Arg Gly Ser Arg Asn Ser Asp
          20           25           30
Cys Gly Asn Cys Leu Gln Phe Ser Ser Gly Gln Met Thr Leu Pro Arg
          35           40           45
Leu Pro Arg Pro Trp Pro Lys Gly Ser Arg Gly Leu Gly Pro Thr Ala
          50           55           60
Asp Ala Arg Thr Leu Thr Pro Asp Ala Ser Glu Ala Ser Arg Trp Ala
65           70           75           80
Leu Arg Gly Leu Leu Trp Leu Cys Ser Cys Trp Leu Gly Trp Gly Ser
          85           90           95
Asp Leu Val Arg Asp Met Ser Val Ser Val
          100           105

```

<210> 2411

<211> 371

<212> DNA

<213> Homo sapiens

<400> 2411

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ccatgggctg ggtgctggag acacgagatc aggcaggccc tgcccctggg gctcattcta
60
gggtctgcgg cagacagga gacagagga gctgtgagag ccctgaggct gagtggcttt
120
ctggggaagc accatcccta gggacctcg cggtcggtca gtggccgctg ctgtcggtgt
180
gcagagcaga ggctggggcg agagtgggtca gcaggcctgc tgggtggcagc ttgtgcagga
240
agggaggatg gaggttggt tgtggctggc aagaggggtg catgcacgtc gctgaaaggc
300
aggcctgggc ccgaggcctg ggtgtgggga cgctgagga gactgtacag tgtggagtcg
360
gggggggctgc g
371

```

<210> 2412

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2412

```

Met Gly Trp Val Leu Glu Thr Arg Asp Gln Ala Gly Pro Ala Pro Gly
 1           5           10           15
Ala His Ser Arg Val Cys Gly Arg Gln Gly Asp Arg Gly Ser Cys Glu
          20           25           30
Ser Pro Glu Ala Glu Trp Leu Ser Gly Glu Ala Pro Ser Leu Gly Thr
          35           40           45
Ser Ala Phe Gly Gln Trp Pro Leu Leu Ser Val Cys Arg Ala Glu Ala
          50           55           60
Gly Ala Arg Val Val Ser Arg Pro Ala Gly Gly Ser Leu Cys Arg Lys

```

```

<400> 2414
Met Lys Ser Val Thr Tyr Ser Gln Val Pro Arg Gly Arg Gly Glu Asn
 1             5             10             15
Pro Ala Cys Ser Asn Ser Ser Gln Asp Leu Ile His Arg Phe Arg Gly
      20             25             30
Thr Cys Gly Leu Trp Val His Ser Pro Gln Trp Gln Asn Leu Gln Ser

```

35 40 45
 His Ile Cys Trp Ala Glu Pro Ala Trp His Glu Gln Gly Phe Ser Leu
 50 55 60
 Leu Trp Pro Pro Leu Phe Asn Thr Val Leu Leu Ser Lys Asn Trp Leu
 65 70 75 80
 Gly Gly Ala Gly Pro Pro Cys Asn Leu Gln Ala Cys His Leu Val Val
 85 90 95
 Ser Phe Cys Ser Ala Ala Ser Gln Gly Phe Ser Ala Pro Gly Ala Gly
 100 105 110
 Trp Trp Gly Pro Ala Leu Leu Arg Leu Ile Arg Lys Asp Ala Leu His
 115 120 125
 Gly Lys Ser Ser Pro Gln Pro Pro Val
 130 135

<210> 2415

<211> 2164

<212> DNA

<213> Homo sapiens

<400> 2415

ctctgtccag cgtcctcgcg ggtctgaatg gaagggtcga ggtcgtcgtc ggccggcgagc
 60
 agatcctgaa gccagaactc caccctcgccg cccgcgccat gcggcgaggag aggtgcggcg
 120
 cccccaccc gcgtcgccgc catggagggtg ctgcggcgct cttcggtctt cgctgcggag
 180
 atcatggacg cctttgatcg ctggcccaca gacaaggagc tgggtggcca ggctaaagca
 240
 ctaggccggg agtacgtgca cgcgcggctt ttgcgcgccg gcctctcctg gagcgtccca
 300
 gagcgtgcct cgctgcccc tggaggacgc ctggctgagg tgtgcgcggt gctgctgcgc
 360
 ctgggcgatg agctggagat gatccggccc agcgtctacc gcaacgtggc gcgtcagctg
 420
 cacatctccc tgcagtctga gcctgtggtg accgatgcgt tcctggccgt ggctggccac
 480
 atcttctctg caggcatcac gtggggcaag gtggtgtccc tgtatgcggt ggccgcgggg
 540
 ctggccgtgg actgtgtgag gcaggcccag cctgccatgg tccacgcctt cgtggactgc
 600
 ctgggggagt tcgtgcgcaa gaccctggca acctggctgc ggagacgcgg cggatggact
 660
 gatgtcctca agtgtgtggt cagcacagac cctggcctcc gctccactg gctggtggt
 720
 gcactctgca gcttcggccg ctctctgaag gctgccttct tcgtgctgct gccagagaga
 780
 tgagctgccc acctggcagt ggccgcagcc tggccctctg ggcccaacgc aggaggccct
 840
 cagcaccgga acacatcttc ctccctccca cccgagcctg gagcactcta acctcggaga
 900
 cccctaagc cccgttcttc cgcagaccca ggccctccgg aagggtgagt ggggaggggc
 960
 tttcctgagc ctggagctgg gctttggggc agcctgcgac cctccccgct tgtgtccctt
 1020

ctctgtgat ctctgtgttt tcccttttct ttctggggcc aggaagtcag ggtcaactcc
 1080
 caggcctcag gtgaaggggc ccagaacacc tgctctcacc tgagccccag gtgaaggggc
 1140
 ccgggaacac ctgctctcac ctgagcccca ggtgaagggg cccgggaaca cctgctctca
 1200
 cctgagcccc tggggaaggg gcccgggaaca cctgctctca cctgagcccc aggtgaaggg
 1260
 gcccgggaaca cctgctctca cctgagcccc aggtgaaggg gcccgggaaca cttgctctca
 1320
 cctgagcccc aggtgaaggg gcccgggaac acctctcacc tgaacccggg ggtcccatcc
 1380
 caggaagaag ggccatctca ggacatgagt cctcaggggc cctgcacatt caatctgaag
 1440
 gtgaccctgg cctggctgaa gctggaagag ctgtggggac tcagcctgta aacagagcgt
 1500
 aagggttcaca tgctgggtgc ttaatccgtt tctggaggaa gagtatgaca cccacttggt
 1560
 atgggggtcct tgtgcggtgg ggaccggggc cggcgggctc caggccagca cacctaacc
 1620
 atggatgtgg aacctacggc cgagaaggaa tgttgcatga gtcggatccc agtccattgt
 1680
 cagtggaggg tgagggtgac cccatctgct atttttgtgc tcacctcat acaaccattt
 1740
 ggggatgtgc ctattagggc tccgtaagaa ctcagatgcc tgggaagccc agcccctcag
 1800
 gtgccccac acacagcctt cccttgacgc ctacatttct aggcacatgt gaggcattct
 1860
 tcctggagcc ccgagccagc cctgtccctc cccagtgcag catggcactc aggagataca
 1920
 ggctggacat ggggcagtcg ttctggggag gcctggccta gcagccaccc acctgagccc
 1980
 tcccggccag gcttcgtgct ggggtggggc atgtgccagg acaggagggg cccggcggaa
 2040
 agccagcccc ggactcatcg tgacattgag atcccactgg agggtagggg tggtataaaa
 2100
 cttctccaaa cgataaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2160
 aaaa
 2164

<210> 2416

<211> 213

<212> PRT

<213> Homo sapiens

<400> 2416

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Val | Leu | Arg | Arg | Ser | Ser | Val | Phe | Ala | Ala | Glu | Ile | Met | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Phe | Asp | Arg | Trp | Pro | Thr | Asp | Lys | Glu | Leu | Val | Ala | Gln | Ala | Lys |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Ala | Leu | Gly | Arg | Glu | Tyr | Val | His | Ala | Arg | Leu | Leu | Arg | Ala | Gly | Leu |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ser | Trp | Ser | Ala | Pro | Glu | Arg | Ala | Ser | Pro | Ala | Pro | Gly | Gly | Arg | Leu |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Ala Glu Val Cys Ala Val Leu Leu Arg Leu Gly Asp Glu Leu Glu Met | | |
| 65 | 70 | 75 |
| Ile Arg Pro Ser Val Tyr Arg Asn Val Ala Arg Gln Leu His Ile Ser | | 80 |
| | 85 | 90 |
| Leu Gln Ser Glu Pro Val Val Thr Asp Ala Phe Leu Ala Val Ala Gly | | 95 |
| | 100 | 105 |
| His Ile Phe Ser Ala Gly Ile Thr Trp Gly Lys Val Val Ser Leu Tyr | | 110 |
| | 115 | 120 |
| Ala Val Ala Ala Gly Leu Ala Val Asp Cys Val Arg Gln Ala Gln Pro | | 125 |
| | 130 | 135 |
| Ala Met Val His Ala Leu Val Asp Cys Leu Gly Glu Phe Val Arg Lys | | 140 |
| 145 | 150 | 155 |
| Thr Leu Ala Thr Trp Leu Arg Arg Arg Gly Gly Trp Thr Asp Val Leu | | 160 |
| | 165 | 170 |
| Lys Cys Val Val Ser Thr Asp Pro Gly Leu Arg Ser His Trp Leu Val | | 175 |
| | 180 | 185 |
| Ala Ala Leu Cys Ser Phe Gly Arg Phe Leu Lys Ala Ala Phe Phe Val | | 190 |
| | 195 | 200 |
| Leu Leu Pro Glu Arg | | 205 |
| 210 | | |

<210> 2417

<211> 615

<212> DNA

<213> Homo sapiens

<400> 2417

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nnagatcttt ggaatgggca gaactactaa atacagttaa tgcaccaaca agggtaagta
60
aagctgattt gattttcata ttgatacctc aatagttaag tgaaggacta gttattgctc
120
cagttgtag ttttcacact ttaaaaaagg ctttcaatta taaaatcttt ctccattatt
180
acgttttttc acaactgtga tccacgccac agttgcaa atcaacata gaaaaattaa
240
ataacataat tgatgaaaag ttagtttttc acaaaaatac gaaaaatttc atcacctaga
300
gaggaaaatg ttatgacaac ctatttcgat aaaattgaaa aaatctcctt tgaggagaa
360
aaatccacaa atccttttgc ttccaacat tatgatgcta atcaagtaat tttaggtaaa
420
actatggctg aacatttacg cttaacggtg tgttattggc atacctttg ctggaatggg
480
aatgatatgt ttgggctagg ttctttggaa cgaagttggc agaaaaattc aaatttgctt
540
gctggcgcag aacaaaaagc cgatattgct tttagtttt tgaataagtt aggcgtgcct
600
tattattggt ttcatt
615

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<210> 2418

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2418

Met Thr Thr Tyr Phe Asp Lys Ile Glu Lys Ile Ser Phe Glu Gly Glu
 1 5 10 15
 Lys Ser Thr Asn Pro Phe Ala Phe Lys His Tyr Asp Ala Asn Gln Val
 20 25 30
 Ile Leu Gly Lys Thr Met Ala Glu His Leu Arg Leu Thr Val Cys Tyr
 35 40 45
 Trp His Thr Phe Cys Trp Asn Gly Asn Asp Met Phe Gly Leu Gly Ser
 50 55 60
 Leu Glu Arg Ser Trp Gln Lys Asn Ser Asn Leu Leu Ala Gly Ala Glu
 65 70 75 80
 Gln Lys Ala Asp Ile Ala Phe Glu Phe Leu Asn Lys Leu Gly Val Pro
 85 90 95
 Tyr Tyr Cys Phe His
 100

<210> 2419

<211> 318

<212> DNA

<213> Homo sapiens

<400> 2419

aaattttcag aagtcctggt gttgcgcggt caaacaggga ccgaggaggg acgaccgcct
 60
 ccccgtagcg ctgettcttc ttctgcttg cagctgaggg gtctgttttg tgctgcttcc
 120
 gtccttctt cacgtacaca gggggcagct tagcctctgg gatgggagtg gcttcataca
 180
 tgagacacat gcccagatcg aggtagatgt cgctgtcgtc ctgcggcggg gtgggtgggg
 240
 tccagaacgg catgacttct gtctgcccac cgacatcttc gtagacatac tccatgttgt
 300
 aggcaccccc tcacgcgt
 318

<210> 2420

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2420

Met Glu Tyr Val Tyr Glu Asp Val Asp Gly Gln Thr Glu Val Met Pro
 1 5 10 15
 Phe Trp Thr Pro Pro Thr Pro Pro Gln Asp Asp Ser Asp Ile Tyr Leu
 20 25 30
 Asp Ser Gly Met Cys Leu Met Tyr Glu Ala Thr Pro Ile Pro Glu Ala
 35 40 45
 Lys Leu Pro Pro Val Tyr Val Arg Lys Glu Arg Lys Arg His Lys Thr
 50 55 60
 Asp Pro Ser Ala Ala Gly Arg Lys Lys Lys Gln Arg His Gly Glu Ala
 65 70 75 80
 Val Val Pro Pro Arg Ser Leu Phe Asp Arg Ala Thr Pro Gly Leu Leu

85 90 95

Lys Ile

<210> 2421
 <211> 420
 <212> DNA
 <213> Homo sapiens

<400> 2421
 nnacgcgtgg tgttctttat ggtcgttttc ggtctctgtc tgctgctggc aaaactgctg
 60
 tactggttgt ttgacagtgc agggcttgtg cacagacgtg agccacaggg cagcacaacg
 120
 ctgtcgcaag tctgagtagg gattatcatg acggatacaa cttcagcccc gcgttacgcg
 180
 ctgctggtggc tacagcttat tggctggcgt gacatgcaac acgcgctgga tttcctgttc
 240
 gcggacgggc agatgaaatc gggcacgctg gtggccatca acgcagaaaa gatgctgggc
 300
 gttgaagata atgcggaagt gaaaagcctg attgaagccg cggagttaa ataccggcc
 360
 ggtattagcg tagtgcgttc aattcgtaaa aagttcccc acgctggagt gtgctcgca
 420

<210> 2422
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 2422
 Met Thr Asp Thr Thr Ser Ala Pro Arg Tyr Ala Leu Arg Gly Leu Gln
 1 5 10 15
 Leu Ile Gly Trp Arg Asp Met Gln His Ala Leu Asp Phe Leu Phe Ala
 20 25 30
 Asp Gly Gln Met Lys Ser Gly Thr Leu Val Ala Ile Asn Ala Glu Lys
 35 40 45
 Met Leu Ala Val Glu Asp Asn Ala Glu Val Lys Ser Leu Ile Glu Ala
 50 55 60
 Ala Glu Phe Lys Tyr Pro Ala Gly Ile Ser Val Val Arg Ser Ile Arg
 65 70 75 80
 Lys Lys Phe Pro His Ala Gly Val Cys Ser Arg
 85 90

<210> 2423
 <211> 371
 <212> DNA
 <213> Homo sapiens

<400> 2423
 tgatcaagtc ggaggattcg gcagggcgca gccatgaacg agaaggcgtc cgtctccaag
 60
 gagctcaacg ccaagcaca gaagatattg gaaggtcttc tacggcatcc tgagaataga
 120

gaatgcgcag actgcaagtc aaagggctcct cgatgggcaa gtgtgaatct aggtatcttt
 180
 atatgcatga catgttcttg cattcataga agcctggggg tgcacatatc taaggtaaga
 240
 tctgccaccc tggatacatg gctgccagag caagttgcat ttattcaatc aatgggaaac
 300
 gaaaaagcaa atagctattg ggaagcagag ctgcctccta actacgatag gggtggaata
 360
 gagaatttga t
 371

<210> 2424

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2424

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Glu | Lys | Ala | Ser | Val | Ser | Lys | Glu | Leu | Asn | Ala | Lys | His | Lys |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Lys | Ile | Leu | Glu | Gly | Leu | Leu | Arg | His | Pro | Glu | Asn | Arg | Glu | Cys | Ala |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Asp | Cys | Lys | Ser | Lys | Gly | Pro | Arg | Trp | Ala | Ser | Val | Asn | Leu | Gly | Ile |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Phe | Ile | Cys | Met | Thr | Cys | Ser | Gly | Ile | His | Arg | Ser | Leu | Gly | Val | His |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ile | Ser | Lys | Val | Arg | Ser | Ala | Thr | Leu | Asp | Thr | Trp | Leu | Pro | Glu | Gln |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Val | Ala | Phe | Ile | Gln | Ser | Met | Gly | Asn | Glu | Lys | Ala | Asn | Ser | Tyr | Trp |
| | | | 85 | | | | | 90 | | | | 95 | | | |
| Glu | Ala | Glu | Leu | Pro | Pro | Asn | Tyr | Asp | Arg | Val | Gly | Ile | Glu | Asn | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |

<210> 2425

<211> 411

<212> DNA

<213> Homo sapiens

<400> 2425

accggtttgc aggcctggaa agacgggcat ttcgacctgg tgatcgtcga ctgcaacatg
 60
 cccgtcctga acggctacga gatgaccgcg cgctgctgag aacatgaagc cnncgccatg
 120
 acctcccggc ctgcacgggg gtctcggtttc accgcccacg cccagcccga ggaacgcccc
 180
 cgctgcaagg aagccggcat gaacgactgc ctgttcaagc ccatcagcct gaccaccctc
 240
 aaccagaaac tcgccgacgt cagccgcgcg ccgctgcca gccaggccgc cttcagcctc
 300
 gacggcctgc acgcctgac cgggggagag ccgctgctga tgcgtcgctt gatcgacgag
 360
 ctgctgagca gttgccaggc ggcccgcgag gcactgctcg gactgcccac c
 411

<210> 2426

<211> 137
 <212> PRT
 <213> Homo sapiens

<400> 2426
 Thr Gly Leu Gln Ala Trp Lys Asp Gly His Phe Asp Leu Val Ile Val
 1 5 10 15
 Asp Cys Asn Met Pro Val Leu Asn Gly Tyr Glu Met Thr Arg Arg Leu
 20 25 30
 Arg Glu His Glu Ala Xaa Ala Met Thr Ser Arg Pro Ala Arg Gly Phe
 35 40 45
 Gly Phe Thr Ala His Ala Gln Pro Glu Glu Arg Pro Arg Cys Lys Glu
 50 55 60
 Ala Gly Met Asn Asp Cys Leu Phe Lys Pro Ile Ser Leu Thr Thr Leu
 65 70 75 80
 Asn Gln Lys Leu Ala Asp Val Thr Pro Arg Pro Arg Pro Ser Gln Ala
 85 90 95
 Ala Phe Ser Leu Asp Gly Leu His Ala Leu Thr Gly Gly Glu Pro Leu
 100 105 110
 Leu Met Arg Arg Leu Ile Asp Glu Leu Leu Ser Ser Cys Gln Ala Ala
 115 120 125
 Arg Glu Ala Leu Leu Gly Leu Pro Ile
 130 135

<210> 2427
 <211> 293
 <212> DNA
 <213> Homo sapiens

<400> 2427
 cataacaaag gcttagggat tttggtgccc tgtgcaattn tggcagcttt tctgttgatt
 60
 tggagcgtaa aatgttgcag agcccagcta gaagccagga ggagcagaca ccctgctgat
 120
 ggagcccaac aagaaagatg ttgtgtccct cctggtgagc gctgtcccag tgcacccgat
 180
 aatggcgaag aaaatgtgcc tctttcagga aaagtatagg aaatgagaga agactgtgac
 240
 aactcatgac ctgcatacctt aatatccagt gacttcattt ccccttcacg cgt
 293

<210> 2428
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 2428
 His Asn Lys Gly Leu Gly Ile Leu Val Pro Cys Ala Ile Xaa Ala Ala
 1 5 10 15
 Phe Leu Leu Ile Trp Ser Val Lys Cys Cys Arg Ala Gln Leu Glu Ala
 20 25 30
 Arg Arg Ser Arg His Pro Ala Asp Gly Ala Gln Gln Glu Arg Cys Cys
 35 40 45
 Val Pro Pro Gly Glu Arg Cys Pro Ser Ala Pro Asp Asn Gly Glu Glu

```

      50                               55
Asn Val Pro Leu Ser Gly Lys Val
65                               70

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<210> 2429
<211> 428
<212> DNA
<213> Homo sapiens
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<400> 2429
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60
atcgccgaga tggcggggct acaggctgct cagtcgatcc gggaatcctt gaacaaggct
120
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180
ctggaacagg ccgtacatga gctggatggc actgggggatg ctgatcctcg cgccgctgag
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<210> 2430
<211> 142
<212> PRT
<213> Homo sapiens
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<400> 2430
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Asp Asp Asp Leu Ile Ala Glu Met Ala Gly Leu Gln Ala Ala Gln Ser
          20          25          30
Ile Arg Glu Ser Leu Asn Lys Ala Asp Val Leu Leu Asn Gly Val Glu
          35          40          45
Thr Ser Thr Gly Pro Gln Pro Gly Ala Leu Ala Leu Leu Glu Gln Ala
          50          55          60
Val His Glu Leu Asp Gly Thr Gly Asp Ala Asp Pro Arg Ala Ala Glu
65          70          75          80
Leu Ala Glu Arg Ala Arg Gln Met Ser Tyr Asp Leu Thr Asp Leu Ala
          85          90          95
Ala Ser Val Ala Gly His Ala Ala Arg Ala Glu Ala Asp Pro Gln Arg
          100          105          110
Leu Glu Glu Leu Gly Gly Arg Leu Ala Ala Ile Gln Arg Leu Leu Arg
          115          120          125
Ala Arg Thr Thr Thr Leu Asp Asp Leu Leu Asp Ser Thr Ala
          130          135          140

```

<210> 2431
<211> 409

<212> DNA

<213> Homo sapiens

<400> 2431

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120
aatggcgagg taacaatttc tggggcaaaa aatgccgcat taccaatcct atttgctact
180
ttattatctg aggggtgat caatttaagc aatgtaccgc ttttaaaaga tattgccacc
240
actatcgagt tgtaaaaaga gctgggtgct actgctactc agactcaaca ctgctgcat
300
attaatgcga aagaagttaa gaactatact gcttcttatg aattagtgag aagtatgcgt
360
gcttcaattt tggcattagg tccattgggt gctcggttcg gtgaagctt
409

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<210> 2432

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2432

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Met Gly Gln Phe Ile Ile Gln Gly Gly Cys Gln Leu Asn Gly Glu Val
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Thr Ile Ser Gly Ala Lys Asn Ala Ala Leu Pro Ile Leu Phe Ala Thr
20           25           30
Leu Leu Ser Glu Gly Asp Ile Asn Leu Ser Asn Val Pro Leu Leu Lys
35           40           45
Asp Ile Ala Thr Thr Ile Glu Leu Leu Lys Glu Leu Gly Ala Thr Ala
50           55           60
Thr Gln Thr Gln His Cys Val His Ile Asn Ala Lys Glu Val Lys Asn
65           70           75           80
Tyr Thr Ala Ser Tyr Glu Leu Val Arg Ser Met Arg Ala Ser Ile Leu
85           90           95
Ala Leu Gly Pro Leu Val Ala Arg Phe Gly Glu Ala
100           105

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<210> 2433

<211> 655

<212> DNA

<213> Homo sapiens

<400> 2433

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120
gctctatgat gctcacgtaa caatgaaatc acggaatctc tctctcagaa catttccccg
180
ttgtgaagca gcacgtgact ataatctttt cccagggtta cccctgaagt tcaagtgcaa
240

```

tgcccttgca cagcacagag caggggacga taggaggcgt gccttctcca gctgaaccac
 300
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 360
 accaaagaga caggatcttg gagagagtga ggcctctgtg caggggacga tgaaggccca
 420
 atctggggac atcagggaaa gcagcaaggg tctggctgat tgtgcaaaaa gaactttttc
 480
 tgtgactgcc gtgttccaaa cacacccttt gcttttacia aaacccaaac tgggagggtt
 540
 agcaaaaggc acagtttcag agcataataa agacagagca gaatgggaga ggagggttaat
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<210> 2434

<211> 137

<212> PRT

<213> Homo sapiens

<400> 2434

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | His | Leu | Ile | Asn | Leu | Leu | Ser | His | Ser | Ala | Leu | Ser | Leu | Leu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Cys | Ser | Glu | Thr | Val | Pro | Phe | Ala | Lys | Pro | Pro | Ser | Leu | Gly | Phe | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Ser | Lys | Gly | Cys | Val | Trp | Asn | Thr | Ala | Val | Thr | Glu | Lys | Val | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Ala | Gln | Ser | Ala | Arg | Pro | Leu | Leu | Leu | Ser | Leu | Met | Ser | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Ala | Phe | Ile | Val | Pro | Cys | Thr | Glu | Ala | Ser | Leu | Ser | Pro | Arg | Ser |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Cys | Leu | Phe | Gly | Arg | Gly | Ser | Thr | Asn | Gly | Ser | Thr | Leu | Pro | Pro | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Pro | Thr | Ala | Arg | Pro | Ala | Gly | Pro | Val | Val | Gln | Leu | Glu | Lys | Ala | Arg |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Leu | Leu | Ser | Ser | Pro | Ala | Leu | Cys | Cys | Ala | Gly | Ala | Leu | His | Leu | Asn |
| | | 115 | | | | | 120 | | | | | | | 125 | |
| Phe | Arg | Gly | Lys | Pro | Gly | Lys | Arg | Leu | | | | | | | |
| | 130 | | | | | | 135 | | | | | | | | |

<210> 2435

<211> 401

<212> DNA

<213> Homo sapiens

<400> 2435

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 120
 gcagatattg accaagcggg ccagggtgcg atgggcgcca agatgcgcaa tatcggcgag
 180
 gcctgcaccg cagctaaccg cttcttggtc cagcagtcctg ttgctgagga gttctctgag
 240

aaactcgttg cggagtttga gaagctcaat ctgggcaatg gtatggacga aggtattacc
 300
 tgcggacctc tcgtcgagtc caaggctttg gagagcattg cggcattggg ggacgatgct
 360
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 401

<210> 2436
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 2436
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 20 25 30
 Ala Pro Phe Ile Val Phe Glu Asp Ala Asp Ile Asp Gln Ala Val Gln
 35 40 45
 Gly Ala Met Gly Ala Lys Met Arg Asn Ile Gly Glu Ala Cys Thr Ala
 50 55 60
 Ala Asn Arg Phe Leu Val His Glu Ser Val Ala Glu Glu Phe Ser Glu
 65 70 75 80
 Lys Leu Val Ala Glu Phe Glu Lys Leu Asn Leu Gly Asn Gly Met Asp
 85 90 95
 Glu Gly Ile Thr Cys Gly Pro Leu Val Glu Ser Lys Ala Leu Glu Ser
 100 105 110
 Ile Ala Ala Leu Val Asp Asp Ala Ala Glu Lys Gly Ala Thr Ile Ser
 115 120 125
 Thr Gly Gly Lys Arg
 130

<210> 2437
 <211> 449
 <212> DNA
 <213> Homo sapiens

<400> 2437
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 120
 atggatatgta tttttcaagc tagacgttca taatggtaga acatgaggag gaaaactgcc
 180
 tcttaaatcc caccacttac tgtgacacag tgaccgggtcc ctgcagcgga ctggatagtt
 240
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 300
 tgcctatgta cggatttggt ccaatgcctc agcctgacct cagggacctt cgggggtctg
 360
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 420
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 449

<210> 2438
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 2438
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 Cys Asp Thr Val Thr Gly Pro Cys Ser Gly Leu Asp Ser Cys Ile Arg
 20 25 30
 Val Leu Asp Gly Asn Arg Trp His Ser Lys Gly Gly Ala Gln Phe Arg
 35 40 45
 Glu Met Pro Met Tyr Gly Phe Gly Pro Met Pro Gln Pro Asp Leu Arg
 50 55 60
 Asp Leu Arg Gly Ser Ala Pro Arg Pro Pro Leu His Ile Cys Asp Pro
 65 70 75 80
 Thr His Phe His Pro Ser Ala Thr Phe Lys Phe Gln Ser Phe His Phe
 85 90 95
 Ile Ala Val

<210> 2439
 <211> 4425
 <212> DNA
 <213> Homo sapiens

<400> 2439
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 180
 ctgagggggc gtgagccaga gggcgtctgg aacctgctaa gcattgtgcg ggagatgttc
 240
 aagcggaggg acagcaatgc tgcccccttg ttggaaatcc tactgacca gtgcctcacc
 300
 tatgaacaga taacaggttg gtggtatagc gtacgtacct cagcctcaca cagcagtgcc
 360
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 420
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 480
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2400

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4020

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<210> 2440

<211> 1306

<212> PRT

<213> Homo sapiens

<400> 2440

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Ala | Ser | Asp | Gln | Ser | Thr | Trp | Tyr | Leu | Asp | Glu | Ser | Thr | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Asp | Asn | Ile | Lys | Lys | Thr | Leu | His | Lys | Phe | Cys | Gly | Pro | Ser | Pro |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Val | Val | Phe | Ser | Asp | Val | Asn | Ser | Met | Tyr | Leu | Ser | Ser | Thr | Glu | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Ala | Ala | Ala | Glu | Trp | Ala | Cys | Leu | Leu | Arg | Pro | Leu | Arg | Gly | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Pro | Glu | Gly | Val | Trp | Asn | Leu | Leu | Ser | Ile | Val | Arg | Glu | Met | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Lys | Arg | Arg | Asp | Ser | Asn | Ala | Ala | Pro | Leu | Leu | Glu | Ile | Leu | Thr | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gln | Cys | Leu | Thr | Tyr | Glu | Gln | Ile | Thr | Gly | Trp | Trp | Tyr | Ser | Val | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Ser | Ala | Ser | His | Ser | Ser | Ala | Ser | Gly | His | Thr | Gly | Arg | Ser | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Gln | Ser | Glu | Val | Ala | Ala | His | Ala | Cys | Ala | Ser | Met | Cys | Asp | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Met | Val | Thr | Leu | Trp | Arg | Leu | Ala | Val | Leu | Asp | Pro | Ala | Leu | Ser | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Gln | Arg | Arg | Arg | Glu | Leu | Cys | Thr | Gln | Leu | Arg | Gln | Trp | Gln | Leu | Lys |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Val | Ile | Glu | Asn | Val | Lys | Arg | Gly | Gln | His | Lys | Lys | Thr | Leu | Glu | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Phe | Pro | Gly | Phe | Arg | Pro | Ala | Val | Glu | Ala | Cys | Tyr | Phe | Asn | Trp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Glu | Ala | Tyr | Pro | Leu | Pro | Gly | Val | Thr | Tyr | Ser | Gly | Thr | Asp | Arg |
| | 210 | | | | | | 215 | | | | | 220 | | | |
| Lys | Leu | Ala | Leu | Cys | Trp | Ala | Arg | Ala | Leu | Pro | Ser | Arg | Pro | Gly | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Ser | Arg | Ser | Gly | Gly | Leu | Glu | Glu | Ser | Arg | Asp | Arg | Pro | Arg | Pro | Leu |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Pro | Thr | Glu | Pro | Ala | Val | Arg | Pro | Lys | Glu | Pro | Gly | Thr | Lys | Arg | Lys |

260 265 270
 Gly Leu Gly Glu Gly Val Pro Ser Ser Gln Arg Gly Pro Arg Arg Leu
 275 280 285
 Ser Ala Glu Gly Gly Asp Lys Ala Leu His Lys Met Gly Pro Gly Gly
 290 295 300
 Gly Lys Ala Lys Ala Leu Gly Gly Ala Gly Ser Gly Ser Lys Gly Ser
 305 310 315 320
 Ala Gly Gly Gly Ser Lys Arg Arg Leu Ser Ser Glu Asp Ser Ser Leu
 325 330 335
 Glu Pro Asp Leu Ala Glu Met Ser Leu Asp Asp Ser Ser Leu Ala Leu
 340 345 350
 Gly Ala Glu Ala Ser Thr Phe Gly Gly Phe Pro Glu Ser Pro Pro Pro
 355 360 365
 Cys Pro Leu His Gly Gly Ser Arg Gly Pro Ser Thr Phe Leu Pro Glu
 370 375 380
 Pro Pro Asp Thr Tyr Glu Asp Gly Gly Val Tyr Phe Ser Glu Gly
 385 390 395 400
 Pro Glu Pro Pro Thr Ala Ser Val Gly Pro Pro Gly Leu Leu Pro Gly
 405 410 415
 Asp Val Cys Thr Gln Asp Asp Leu Pro Ser Thr Asp Glu Ser Gly Asn
 420 425 430
 Gly Leu Pro Lys Thr Lys Glu Ala Ala Pro Ala Val Gly Glu Glu Asp
 435 440 445
 Asp Asp Tyr Gln Ala Tyr Tyr Leu Asn Ala Gln Asp Gly Ala Gly Gly
 450 455 460
 Glu Glu Glu Lys Ala Glu Gly Gly Ala Gly Glu Glu His Asp Leu Phe
 465 470 475 480
 Ala Gly Leu Lys Pro Leu Glu Gln Glu Ser Arg Met Glu Val Leu Phe
 485 490 495
 Ala Cys Ala Glu Ala Leu His Ala His Gly Tyr Ser Ser Glu Ala Ser
 500 505 510
 Arg Leu Thr Val Glu Leu Ala Gln Asp Leu Leu Ala Asn Pro Pro Asp
 515 520 525
 Leu Lys Gly Lys Lys Asn Lys Val Ser Thr Ser Arg Gln Thr Trp Val
 530 535 540
 Ala Thr Asn Thr Leu Ser Lys Ala Ala Phe Leu Leu Thr Val Leu Ser
 545 550 555 560
 Glu Arg Pro Glu Arg His Asn Leu Ala Phe Arg Val Gly Met Phe Ala
 565 570 575
 Leu Glu Leu Gln Arg Pro Pro Ala Ser Thr Lys Ala Leu Glu Val Lys
 580 585 590
 Leu Ala Tyr Gln Glu Ser Glu Val Ala Ala Leu Leu Lys Lys Ile Pro
 595 600 605
 Leu Gly Pro Ser Glu Met Ser Thr Met Arg Cys Arg Ala Glu Glu Leu
 610 615 620
 Arg Glu Gly Thr Leu Cys Asp Tyr Arg Pro Val Leu Pro Leu Met Leu
 625 630 635 640
 Ala Ser Phe Ile Phe Asp Val Leu Cys Ala Pro Val Val Ser Pro Thr
 645 650 655
 Gly Ser Arg Pro Pro Ser Arg Asn Trp Asn Ser Glu Thr Pro Gly Asp
 660 665 670
 Glu Glu Leu Gly Phe Glu Ala Ala Val Ala Ala Leu Gly Met Lys Thr
 675 680 685
 Thr Val Ser Glu Ala Glu His Pro Leu Leu Cys Glu Gly Thr Arg Arg

1763

1125 1130 1135
 Ala His Gln Trp Phe Trp Leu Tyr Glu Gln Thr Ala Gly Gly Ser Ser
 1140 1145 1150
 Thr Ala Arg Glu Gly Ala Thr Ser Cys Ser Ala Ser Gly Ile Arg Ala
 1155 1160 1165
 Gly Gly Glu Ala Gly Arg Gly Met Pro Glu Gly Arg Gly Gly Pro Gly
 1170 1175 1180
 Thr Glu Pro Val Thr Val Ala Ala Ala Ala Val Thr Ala Ala Ala Thr
 1185 1190 1195 1200
 Val Val Pro Val Ile Ser Val Gly Ser Ser Leu Tyr Pro Gly Pro Gly
 1205 1210 1215
 Leu Gly His Gly His Ser Pro Gly Leu His Pro Tyr Thr Ala Leu Gln
 1220 1225 1230
 Pro His Leu Pro Cys Ser Pro Gln Tyr Leu Thr His Pro Ala His Pro
 1235 1240 1245
 Ala His Pro Met Pro His Met Pro Arg Pro Ala Val Phe Pro Val Pro
 1250 1255 1260
 Ser Ser Ala Tyr Pro Gln Val Arg Pro Val Phe Cys Trp Gly Val Arg
 1265 1270 1275 1280
 His Gly Lys Ile Leu Gly Ile His Arg Gly Leu Glu Trp Val Leu Trp
 1285 1290 1295
 Glu Tyr Asn Trp Ser Val Gly Glu Ser Trp
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<210> 2441

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 2441

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 ccatttgtaa ttttggtttt ggtgaacatg cactttgcgt catgcaaadc aggtttctaa
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1260
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1380
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2040
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2100
ccagaagact attcagaccg tgagcctgtt tttgatttga gtgttccact aaacaaacaa
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2220
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2244

<210> 2442

<211> 168
 <212> PRT
 <213> Homo sapiens

<400> 2442
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 Pro Ile Ser Cys Trp Gly Pro Ser Thr Cys Leu Cys Pro Trp Leu Cys
 20 25 30
 Pro Ser Ala Asn Pro Ser Pro Pro Gly Ser His Pro Gln Leu Pro
 35 40 45
 Ala Arg Ser Pro Leu Pro Gly Pro Leu Pro Ser Pro Trp Cys Ser Leu
 50 55 60
 Ser Gln Gly Pro Ser Pro Ser Asp Phe Pro Gln Gly Ser Arg Leu Asp
 65 70 75 80
 Leu Glu Leu Cys Leu Pro Val Cys Ala Met Gly Ser Ala Ser Gly Leu
 85 90 95
 Glu Leu Arg Leu Phe Pro Gly Pro Gly Gln Gly Arg Pro Pro Leu Gly
 100 105 110
 Gly Ala Gly Ala Glu Leu Leu Arg Pro Glu Asp Tyr Ser Asp Arg Glu
 115 120 125
 Pro Val Phe Asp Leu Ser Val Pro Leu Asn Lys Gln Gln Lys Pro Lys
 130 135 140
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 145 150 155 160
 Lys Lys Lys Lys Lys Lys Lys
 165

<210> 2443
 <211> 361
 <212> DNA
 <213> Homo sapiens

<400> 2443
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 180
 atctatacgc gcgatgaaat tatcgaagtc accttcggaa tggattatga ggcctttgac
 240
 cgtgccattg atacccatat caaaaacatt cgccagaaga ttgaagcgga tccgaaaaac
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 361

<210> 2444
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 2444

Xaa Val Arg Ala Ile Leu Arg Arg Thr Pro Ser Arg Glu Asp Glu Lys
 1 5 10 15
 Met Leu Gln Thr Ala Asp Gly Arg Leu Arg Ile Asp Ile Glu Ser Met
 20 25 30
 Arg Thr Phe Val Glu Gly Lys Glu Val His Leu Thr Lys Asn Glu Phe
 35 40 45
 Leu Ile Val Gln Thr Leu Phe Thr His Pro Asn Lys Ile Tyr Thr Arg
 50 55 60
 Asp Glu Ile Ile Glu Val Thr Phe Gly Met Asp Tyr Glu Ala Phe Asp
 65 70 75 80
 Arg Ala Ile Asp Thr His Ile Lys Asn Ile Arg Gln Lys Ile Glu Ala
 85 90 95
 Asp Pro Lys Asn Pro Val Tyr Ile Arg Thr Val Tyr Gly Val Gly Tyr
 100 105 110
 Leu Pro Gly Gly Phe Asp Glu Ala
 115 120

<210> 2445

<211> 403

<212> DNA

<213> Homo sapiens

<400> 2445

agatctgttg aatgaagcag gtgccactta gacattcact tcactgactc caaccacaac
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 ctcccccttca tttgatatcc tgctcttggc agaaggatgg agaaagagca tcgcacaaag
 120
 aggaagcatg tttatcctgt tcagattact gcttctgcca ggctgctgct gctgttgggt
 180
 tctgcacatt tgctctttat taagcaaagc tcagagctgg gtgctggcaa gggaatcccc
 240
 tgtatttaca caggtaaacc tgagagccag agggcccaa accatcctgg ctgagaggga
 300
 caagctatta gagttaataa cagtgcactg gcattccttc aaaatcctaa tggaagcata
 360
 aataaaaaga ggaaagtccc ctttacccaa gaacctgaaa aan
 403

<210> 2446

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2446

Met Glu Lys Glu His Arg Thr Lys Arg Lys His Val Tyr Pro Val Gln
 1 5 10 15
 Ile Thr Ala Ser Ala Arg Leu Leu Leu Leu Gly Ser Ala His Leu
 20 25 30
 Leu Phe Ile Lys Gln Met Ser Glu Leu Gly Ala Gly Lys Gly Ile Pro
 35 40 45
 Cys Ile Tyr Thr Gly Lys Pro Glu Ser Gln Arg Ala Pro Asn His Pro
 50 55 60
 Gly Cys Glu Gly Gln Ala Ile Arg Val Asn Asn Ser Ala Leu Ala Phe

65 70 75 80
 Leu Gln Asn Pro Asn Gly Ser Ile Asn Lys Lys Arg Lys Val Pro Phe
 85 90 95
 Thr Gln Glu Pro Glu Lys
 100

<210> 2447

<211> 744

<212> DNA

<213> Homo sapiens

<400> 2447

nacgcgtcga gggttgccag tcacgggttg cgggtggggc aggtactact caccgtcaat
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 120
 ttgggcgtcg tgccgatcgt caacgagaac gacacggtcg ccaccggaga aattcggttt
 180
 ggcgataatg atcggcttgc tgccctggta gccgagctgg tgccgcgtca agccctcatt
 240
 ctgctctctg acgttgacgc cttgtacacc gcccatccgg attcaccgga tgctcgtcgc
 300
 gtggaggttg tggaggacat cgatgcattg gatgtcgata ccataaaagc tggttcgggg
 360
 gtgggaaccg gcggcatgac cagcaaactt gaagccgccc gaatggccac ctgtgccggg
 420
 gtaccgggtg tactcgcagc ggcgggtggat gccccggacg ttctggctgg tgcccccg
 480
 gacactact tccgcccgtt ggcgacgcga cggccccgac ggttgctgtg gttggccgac
 540
 gcggccaccc cgcagggaca gatcgtcacc gacgacggag ctgtcgaagc tttgacacag
 600
 cgtcattcct cgttggtggc ggtgggtgtg actcgggtac acggggattt ccaagcaggc
 660
 gaccagtgga cgatcctggc ctccgacggt cgagttgttg gtcgcggtat cgcccagttc
 720
 tcccatgatg aggtgcgcgt catg
 744

<210> 2448

<211> 248

<212> PRT

<213> Homo sapiens

<400> 2448

Xaa Ala Ser Arg Phe Ala Ser His Gly Leu Arg Val Gly Gln Val Leu
 1 5 10 15
 Leu Thr Val Asn Asp Leu Val Arg Pro Thr Ser Tyr Arg Asn Ala Trp
 20 25 30
 Ser Thr Leu Asp Thr Leu Leu Gly Leu Gly Val Val Pro Ile Val Asn
 35 40 45
 Glu Asn Asp Thr Val Ala Thr Gly Glu Ile Arg Phe Gly Asp Asn Asp
 50 55 60
 Arg Leu Ala Ala Leu Val Ala Glu Leu Val Arg Ala Gln Ala Leu Ile

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65          70          75          80
Leu Leu Ser Asp Val Asp Ala Leu Tyr Thr Ala His Pro Asp Ser Pro
85          90          95
Asp Ala Arg Arg Val Glu Val Val Glu Asp Ile Asp Ala Leu Asp Val
100         105         110
Asp Thr His Lys Ala Gly Ser Gly Val Gly Thr Gly Gly Met Thr Thr
115         120         125
Lys Leu Glu Ala Ala Arg Met Ala Thr Cys Ala Gly Val Pro Val Val
130         135         140
Leu Ala Ala Ala Val Asp Ala Pro Asp Val Leu Ala Gly Ala Pro Val
145         150         155         160
Gly Thr Tyr Phe Arg Pro Leu Ala Thr Arg Arg Pro Arg Arg Leu Leu
165         170         175
Trp Leu Ala Asp Ala Ala Thr Pro Gln Gly Gln Ile Val Ile Asp Asp
180         185         190
Gly Ala Val Glu Ala Leu Thr Gln Arg His Ser Ser Leu Leu Ala Val
195         200         205
Gly Val Thr Arg Val His Gly Asp Phe Gln Ala Gly Asp Pro Val Thr
210         215         220
Ile Leu Ala Ser Asp Gly Arg Val Val Gly Arg Gly Ile Ala Gln Phe
225         230         235         240
Ser His Asp Glu Val Arg Val Met
245

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<210> 2449
 <211> 296
 <212> DNA
 <213> Homo sapiens

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<400> 2449
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ctactgtctt cccctcctcc ctgggccctg tcctatcccc agaggccaga caggccttcc
120
tcgcatgcaa gagtctccct cgccctgccg gacagtggcc tccatctacc tgctgtctt
180
gctggactcc agaacactcc agtcctttcc cccttggggg ttgggggggg ccccccttt
240
ttttccccc ctttccctct tcattccaca ggaggccagc ctcaacatcc ccnccc
296

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<210> 2450
 <211> 90
 <212> PRT
 <213> Homo sapiens

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<400> 2450
Met Asn Thr Cys Arg His Gln Leu Pro Lys Ile Ser Tyr Cys Ser Pro
1          5          10          15
Leu Leu Pro Gly Pro Cys Pro Ile Pro Arg Gly Gln Thr Gly Leu Pro
20         25         30
Arg Met Gln Glu Ser Pro Ser Pro Cys Arg Thr Val Ala Ser Ile Tyr
35         40         45
Leu Pro Val Leu Leu Asp Ser Arg Thr Leu Gln Ser Phe Pro Pro Trp

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50 55 60
 Gly Leu Gly Gly Ala Pro Pro Phe Phe Pro Pro Leu Ser Leu Phe Ile
 65 70 75 80
 Pro Gln Glu Ala Ser Leu Asn Ile Pro Xaa
 85 90

<210> 2451
 <211> 589
 <212> DNA
 <213> Homo sapiens

<400> 2451
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 tgcaacgatg atcttgtgag cgatgtattg accggtgtgt gggccgatct tgtgggccag
 120
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 180acgcattggc cattacgggt ccgcctggat caggtcggtc gaatgctgcg 240
 aaggcctttg cagcggcgct acagtgcgtc gaccatggat gcgggcagtg caatgcctgt
 300
 cgaaccngcc tgtcaggcgc ccatectgac gtcaccctcg tgcgtactga ggcgctgtct
 360
 attggcgtcg attgaggctc tgaaatgggt ttgttcgagc gggcgatgaa ttcgggtccc
 420
 cggggcgctc ccagggttgt cgtcgtcgaa gatgccgacc gcatcactga acgcgagct
 480
 gacgccttgc ttaaagctat cgaggagcct gcgccgaaaa ccgtctggtt gctgtgtgcc
 540
 cctactccag aggacgtcat cgtcacgac aggtcgagat gtcggcgcc
 589

<210> 2452
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 2452
 Leu Asp Cys Ser Thr Gly Glu Glu Ser Ser Gly Tyr Asp Val Gly Pro
 1 5 10 15
 Ile Cys Asn Asp Asp Leu Val Ser Asp Val Leu Thr Gly Val Trp Ala
 20 25 30
 Asp Leu Val Gly Gln Glu Lys Ala Val Gly Val Leu Arg Arg Ala Ala
 35 40 45
 Glu Ser Gln Pro Gly Arg Ser Ser His Ala Met Ser His Ala Trp Leu
 50 55 60
 Ile Thr Gly Pro Pro Gly Ser Gly Arg Ser Asn Ala Ala Lys Ala Phe
 65 70 75 80
 Ala Ala Ala Leu Gln Cys Val Asp His Gly Cys Gly Gln Cys Asn Ala
 85 90 95
 Cys Arg Thr Xaa Leu Ser Gly Ala His Pro Asp Val Thr Leu Val Arg
 100 105 110
 Thr Glu Ala Leu Ser Ile Gly Val Asp
 115 120

<210> 2453
 <211> 695
 <212> DNA
 <213> Homo sapiens

<400> 2453
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 120
 acagggtggc acacgcacat gcccctgggt atgctcatgt ccattcatcc atcccagcct
 180
 gtgcacgtcc tctcactcct gtgttcacac ctatgcccaa atgaaccaag ggacacacat
 240
 gcacaccctt atgtggtgca cacacactcg tgcacacgga gccacaccag cacatgctca
 300
 gaggcatttg tgtgcgtggg catttgcagc atgactcaga acggagtatg ggggtggcgcg
 360
 gcgtggctgg ggagggtccca tcagcccgcg tctgaaaccc tcccaacctg cccatcctgg
 420
 cccaggcact gtgtctccgg cttgggcttc agccccggac cccaggacac cccggacaaa
 480
 gaggagctgc tctcgtctga agcctgctac gaatgcagga tcaatggcct ctcccctcgg
 540
 gaccggccac gacgcagtgc ccacagggac caccaggtga catgggtgct gcactaggca
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 660
 agccccccga agaaggagca ccaggctcca gatct
 695

<210> 2454
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 2454
 Met Ser Tyr Ser Pro Cys Glu His Thr Gly Trp His Thr His Met Pro
 1 5 10 15
 Leu Gly Met Leu Met Ser Ile His Pro Ser Gln Pro Val His Val Leu
 20 25 30
 Ser Leu Leu Cys Ser His Leu Cys Pro Asn Glu Pro Arg Asp Thr His
 35 40 45
 Ala His Pro Tyr Val Val His Thr His Ser Cys Thr Arg Ser His Thr
 50 55 60
 Ser Thr Cys Ser Glu Ala Phe Val Cys Val Gly Ile Cys Ser Met Thr
 65 70 75 80
 Gln Asn Gly Val Trp Gly Gly Ala Ala Trp Leu Gly Arg Ser His Gln
 85 90 95
 Pro Ala Ser Glu Thr Leu Pro Thr Cys Pro Ser Trp Pro Arg His Cys
 100 105 110
 Val Ser Gly Leu Gly Phe Ser Pro Gly Pro Gln Asp Thr Pro Asp Lys
 115 120 125
 Glu Glu Leu Leu Ser Ser Glu Ala Cys Tyr Glu Cys Arg Ile Asn Gly

| | | | | |
|---|-----|-----|--|-----|
| 130 | | 135 | | 140 |
| Leu Ser Pro Arg Asp Arg Pro Arg Arg Ser Ala His Arg Asp His Gln | | | | |
| 145 | | 150 | | 155 |
| Val Thr Trp Val Leu His | | | | 160 |
| | 165 | | | |

<210> 2455
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 2455
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 ggaaccgcgc agaaggaaat ccacgcgctg ccgatcatga aggcgctccc catgggcgtc
 120
 aaagaactcg ttctgggcga atcgaagtgg caggacgagt tgatcaacaa cttcatcgtc
 180
 gcgctgtttg caggcgtggt gttgctgttc gcggtgctgg tgctgctgta ccggcgcttg
 240
 ctgccgcgct tcatcaacgt gatgtcgctg gcggtggcac cgctggggcg gttgatcggc
 300
 ctgtggctga ccaacacgcc gatctcgatg ccggtctata tcggcttgat catgctgctc
 360
 ggcacgtcg ccaagaat
 378

<210> 2456
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 2456
 Thr Arg Arg Gln Lys Arg Gln Leu Thr Val Gly Ala Asp Leu Ser Pro
 1 5 10 15
 Gly Val Val Ser Gly Thr Ala Gln Lys Glu Ile His Ala Leu Pro Ile
 20 25 30
 Met Lys Ala Leu Pro Met Gly Val Lys Glu Leu Val Leu Gly Glu Ser
 35 40 45
 Lys Trp Gln Asp Glu Leu Ile Asn Asn Phe Ile Val Ala Leu Phe Ala
 50 55 60
 Gly Val Val Leu Leu Phe Ala Val Leu Val Leu Tyr Arg Arg Leu
 65 70 75 80
 Leu Pro Pro Phe Ile Asn Val Met Ser Leu Ala Val Ala Pro Leu Gly
 85 90 95
 Gly Leu Ile Gly Leu Trp Leu Thr Asn Thr Pro Ile Ser Met Pro Val
 100 105 110
 Tyr Ile Gly Leu Ile Met Leu Leu Gly Ile Val Ala Lys Asn
 115 120 125

<210> 2457
 <211> 754
 <212> DNA
 <213> Homo sapiens

<400> 2457

cctaggaatt taccaccatc aaagacttac attaaccagc tatccatgaa ctcacctgag
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 atgagcgaat gtgacatctt gcacactctg cgatgggtctt ctcggtccg gatcagctcc
 120
 tatgtcaact ggataaagga tcacettatc aaacagggaa tgaaggctga gcatgctagc
 180
 tcgcttctag aactggcatc caccactaag tgtagctcag tgaaatatga tgttgaaata
 240
 gtagaggaat acttcgctcg acagatctca tccttctgta gtatcgactg tgccaccatc
 300
 ttgcagctgc atgaaattcc cagtctgcag tccatctaca cccttgatgc cgcgattcta
 360
 aaaggccag gtctttttgg gatgagcatt tttctaagat ggctgctgag actgacctc
 420
 ataagtcgtc tgagattacc aagaacctac ttccagccac gctgcaactc attgacacct
 480
 atgcatcgtt caccagagcc tatttgctgc aaaactttaa tgaagagggg acaactgaga
 540
 aaccttcaa ggagaaactg caaggctttg ctgctgtttt ggctattggc tctagcaggt
 600
 gcaaggcaaa tactctgggt ccgacactgg ttcagaattt gccatcgta gtgcagactg
 660
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 720
 atgcctttgc caatgacacc atcccttcac gcgt
 754

<210> 2458

<211> 236

<212> PRT

<213> Homo sapiens

<400> 2458

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asn | Ser | Pro | Glu | Met | Ser | Glu | Cys | Asp | Ile | Leu | His | Thr | Leu | Arg |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Trp | Ser | Ser | Arg | Leu | Arg | Ile | Ser | Ser | Tyr | Val | Asn | Trp | Ile | Lys | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Leu | Ile | Lys | Gln | Gly | Met | Lys | Ala | Glu | His | Ala | Ser | Ser | Leu | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Glu | Leu | Ala | Ser | Thr | Thr | Lys | Cys | Ser | Ser | Val | Lys | Tyr | Asp | Val | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Val | Glu | Glu | Tyr | Phe | Ala | Arg | Gln | Ile | Ser | Ser | Phe | Cys | Ser | Ile |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Cys | Ala | Thr | Ile | Leu | Gln | Leu | His | Glu | Ile | Pro | Ser | Leu | Gln | Ser |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ile | Tyr | Thr | Leu | Asp | Ala | Ala | Ile | Leu | Lys | Gly | Pro | Gly | Leu | Phe | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Ser | Ile | Phe | Leu | Arg | Trp | Leu | Leu | Arg | Leu | Ile | Leu | Ile | Ser | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Arg | Leu | Pro | Arg | Thr | Tyr | Phe | Gln | Pro | Arg | Cys | Asn | Ser | Leu | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Met | His | Arg | Ser | Pro | Glu | Pro | Ile | Cys | Cys | Lys | Thr | Leu | Met | Lys |

145 150 155 160
 Arg Glu Gln Leu Arg Asn Leu Pro Arg Arg Asn Cys Lys Ala Leu Leu
 165 170 175
 Leu Phe Trp Leu Leu Ala Leu Ala Gly Ala Arg Gln Ile Leu Trp Val
 180 185 190
 Arg His Trp Phe Arg Ile Cys His Arg Gln Cys Arg Leu Cys Val Ser
 195 200 205
 Pro Gly Thr Thr Ser Ile Pro Met Asn Phe Pro Ile Leu Asp Pro Gly
 210 215 220
 Ala Met Pro Leu Pro Met Thr Pro Ser Leu His Ala
 225 230 235

<210> 2459

<211> 382

<212> DNA

<213> Homo sapiens

<400> 2459

accggtgcac agatcgttct ggccgcgtgc actgccccgc tcaagcaaat cgctatcaac
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 gctgggtcttg agggcggcgt cgtggctgag aaggctcgtg gtctgccccg aggacagggc
 120
 ctcaacgcgg ccaatgacga gtatgtcgac atggttagagg ccggcatcat tgacccggcc
 180
 aagggtgaccc gttcggctct gcagaacgcc gcgtccatcg cggccctgtt cctcaccact
 240
 gaagccgtca tcgctgacaa gcccagacct gttaaggctc ccgctggcgg cggtgatatg
 300
 gacggtatgg gtggcatggg cggcatgatg tgatcgtgta ttgccttcgc tgatttgagt
 360
 gggatgccac tttgccccag gc
 382

<210> 2460

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2460

Thr Gly Ala Gln Ile Val Leu Ala Ala Cys Thr Ala Pro Leu Lys Gln
 1 5 10 15
 Ile Ala Ile Asn Ala Gly Leu Glu Gly Gly Val Val Ala Glu Lys Val
 20 25 30
 Ala Gly Leu Pro Ala Gly Gln Gly Leu Asn Ala Ala Asn Asp Glu Tyr
 35 40 45
 Val Asp Met Val Glu Ala Gly Ile Ile Asp Pro Ala Lys Val Thr Arg
 50 55 60
 Ser Ala Leu Gln Asn Ala Ala Ser Ile Ala Ala Leu Phe Leu Thr Thr
 65 70 75 80
 Glu Ala Val Ile Ala Asp Lys Pro Glu Pro Val Lys Ala Pro Ala Gly
 85 90 95
 Gly Gly Asp Met Asp Gly Met Gly Gly Met Gly Gly Met Met
 100 105 110

<210> 2461
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 2461
 tccggacaaa agggttcaat cgaagtatgg ttagcctttt ccaagtcgcc aggacggacc
 60
 tgcaatgctg tttgtcgtca tgctcggggg caagcaccca cgggctaaaa tcgaaattca
 120
 cgatgtggta ttgcagtcg cggatacgtt gcaacacacc tacaccaat tgcgcgacgg
 180
 ctgggttcggc agccctaagg tgtgcatatc gatgcgtgga tggccgtcga tggcgtcgac
 240
 ggctggaaaag tcgaactcag ccagatggcg ccgcttgccg acgcgcatca cctgtacttc
 300
 atcaacctcg gcggctacga ggccaacgct tttggcgagg cccatcatta cctgctgggtg
 360
 gtcgcccggg acaaacagga agccaagcgc aaggggcagc ggcaaatggt gcaacactgg
 420
 tccaggccc acaccgatgg cgtaatggat atcgacgact gcttgccgat tgatctgggtg
 480
 gacggtcgct atgttcacct ggtgcaaggc ccgcaccagc cgatcatcca gcacaacgac
 540
 tacatcatcc tgccgcga
 558

<210> 2462
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 2462
 Met Val Ser Leu Phe Gln Val Ala Arg Thr Asp Leu Gln Cys Cys Leu
 1 5 10 15
 Ser Ser Cys Ser Gly Ala Ser Thr His Gly Leu Lys Ser Lys Phe Thr
 20 25 30
 Met Trp Tyr Ser Gln Ser Arg Ile Arg Cys Asn Thr Pro Thr Pro Asn
 35 40 45
 Cys Ala Thr Ala Gly Ser Ala Ala Leu Arg Cys Ala Tyr Arg Cys Val
 50 55 60
 Asp Gly Arg Arg Trp Arg Arg Arg Leu Glu Ser Arg Thr Gln Pro Asp
 65 70 75 80
 Gly Ala Ala Cys Arg Arg Ala Ser Pro Val Leu His Gln Pro Arg Arg
 85 90 95
 Leu Arg Gly Gln Arg Phe Trp Arg Gly Pro Ser Leu Pro Ala Gly Gly
 100 105 110
 Arg Pro Gly Gln Thr Gly Ser Gln Ala Gln Gly Ala Ala Ala Asn Val
 115 120 125
 Ala Thr Leu Val Pro Gly Pro His Arg Trp Arg Asn Gly Tyr Arg Arg
 130 135 140
 Leu Leu Ala Asp
 145

<210> 2463
 <211> 333
 <212> DNA
 <213> Homo sapiens

<400> 2463
 cccagggggt aagccatgag cctgttgagc caagtggccc gggcgccgtt gagcgccaag
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 ttcggcctgc tgattattct gttatacgtc gcgctggcgc tgtgngcgcc gctgctggcg
 120
 ccctatggcg aaaccaggt ggtgggtgaa ggcttcgcgc cgtggagcgg ccagtttttg
 180
 ctgggcaccg ataacctggg gcgcgacatg ttcagccgcc tgatgtacgg cgcgcgcaat
 240
 accttgggca ttgccttcct gacgacgacg ctggcgtttc tgctcggtgg tttgagcggt
 300
 ttggtcgcgg cgatcaaggg cggttgggtc gac
 333

<210> 2464
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 2464
 Met Ser Leu Leu Ser Gln Val Ala Arg Ala Pro Leu Ser Ala Lys Phe
 1 5 10 15
 Gly Leu Leu Ile Leu Leu Tyr Val Ala Leu Ala Leu Xaa Ala Pro
 20 25 30
 Leu Leu Ala Pro Tyr Gly Glu Thr Gln Val Val Gly Glu Gly Phe Ala
 35 40 45
 Pro Trp Ser Gly Gln Phe Leu Leu Gly Thr Asp Asn Leu Gly Arg Asp
 50 55 60
 Met Phe Ser Arg Leu Met Tyr Gly Ala Arg Asn Thr Leu Gly Ile Ala
 65 70 75 80
 Phe Leu Thr Thr Thr Leu Ala Phe Leu Leu Gly Gly Leu Ser Gly Leu
 85 90 95
 Val Ala Ala Ile Lys Gly Gly Trp Val Asp
 100 105

<210> 2465
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 2465
 nntcatgagg acatttccct catatttggt ggtggtaaatt ccctcctggg acacggggaa
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 atgaccagag gctggcggcc cacctggcag gaacagatgc cagctctgct gcagccatcg
 120
 ccccttgagc ggggtggctct gtgcctcttt ctgcactgct ggtgggtggt gctgttggt
 180
 ggtgatgga taccggctgc cagagatggc tcaggtgcca gctgctgggc tatctcaggc
 240

actggctgct gggctatctc gggcgccggc tgctgggcta tctcaggcgc tggctgctgc
 300
 tgggctgtct cgggtgctgg ctgttgggac gtctcctgtc ctggcactgg gctctcgggt
 360
 gctgggtgcc agctgctgcc taccttgcaac tgggtctctgg gcactcactg cactcgggct
 420
 tttccatctc cgac
 434

<210> 2466
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 2466
 Trp Ile Pro Ala Ala Arg Asp Gly Ser Gly Ala Ser Cys Trp Ala Ile
 1 5 10 15
 Ser Gly Thr Gly Cys Trp Ala Ile Ser Gly Ala Gly Cys Trp Ala Ile
 20 25 30
 Ser Gly Ala Gly Cys Cys Trp Ala Val Ser Gly Ala Gly Cys Trp Asp
 35 40 45
 Val Ser Cys Pro Gly Thr Gly Leu Ser Gly Ala Gly Cys Gln Leu Leu
 50 55 60
 Pro Thr Leu His Trp Ala Leu Gly Thr His Cys Thr Arg Ala Phe Pro
 65 70 75 80
 Ser Pro

<210> 2467
 <211> 306
 <212> DNA
 <213> Homo sapiens

<400> 2467
 atggactcca ccggcaccgg agcaggggggt aaggggaaga agggagcggc cgggcgcaag
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 gtcggcgggc caaggaagaa gtcggtgtcg aggtccgtga aggccgtct ccagttcccc
 120
 gtcggccgca tcgggcgcta cttgaagaag ggccgctacg cgcagcgtgt cggcaccggc
 180
 gccccgtct acctcgccgc tgtcctcgaa tacctcgccg ctgaggttct ggagctcgcc
 240
 ggtaatgctg ccagggacaa caagaagact cgcattattc cgcgccacgt gcttctggcg
 300
 atccgg
 306

<210> 2468
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 2468
 Met Asp Ser Thr Gly Thr Gly Ala Gly Gly Lys Gly Lys Lys Gly Ala

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1           5           10           15
Ala Gly Arg Lys Val Gly Gly Pro Arg Lys Lys Ser Val Ser Arg Ser
20           25           30
Val Lys Ala Gly Leu Gln Phe Pro Val Gly Arg Ile Gly Arg Tyr Leu
35           40           45
Lys Lys Gly Arg Tyr Ala Gln Arg Val Gly Thr Gly Ala Pro Val Tyr
50           55           60
Leu Ala Ala Val Leu Glu Tyr Leu Ala Ala Glu Val Leu Glu Leu Ala
65           70           75           80
Gly Asn Ala Ala Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His
85           90           95
Val Leu Leu Ala Ile Arg
100

```

<210> 2469

<211> 489

<212> DNA

<213> Homo sapiens

<400> 2469

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gccggcgtgg cacatggctt ccctgaagcc agcattgccc tggccaagga agctttgcag
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aacagatgag atttcagctg ggacttgag ccaagtggga tttggccttt tggggagaag
120
ggaaagggca ttcaaaggcc agggacagag tatggtcaaa ggcattggaga tgaggaagag
180
gggaccagag cagaggggtca ggttggaag cgagttgggg tcaatctgca aaggggctga
240
cgtgccaggt aaaaaacagg agcacagttt agttttgtcg gatcatttca ggtggaaggg
300
cagtgggaat gttggagaaa acactttttg gtgtcggtac attgaatctg ctcatctata
360
agaataaaac tttatttcat agagttattg tatggctcaa aataggtatg aagaattaag
420
aaaaagaatt ttagatttaa aatgaaaagg cacctacaaa agtagagtgg tagagttacc
480
aacgtggag
489

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<210> 2470

<211> 115

<212> PRT

<213> Homo sapiens

<400> 2470

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Met Ala Ser Leu Lys Pro Ala Leu Pro Trp Pro Arg Lys Leu Cys Arg
1           5           10           15
Thr Asp Glu Ile Ser Ala Gly Thr Cys Ser Gln Val Gly Phe Gly Leu
20           25           30
Leu Gly Arg Arg Glu Arg Ala Phe Lys Gly Gln Gly Gln Ser Met Val
35           40           45
Lys Gly Met Glu Met Arg Lys Arg Gly Pro Glu Gln Arg Val Arg Leu
50           55           60
Glu Ser Glu Leu Gly Ser Ile Cys Lys Gly Ala Asp Val Pro Gly Lys

```

```
<210> 2471
<211> 779
<212> DNA
<213> Homo sapiens
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<210> 2472
<211> 181
<212> PRT
<213> Homo sapiens
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1779

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Lys Leu Leu Ile Leu Leu Arg Ala Ser Glu Gly Val Phe Cys Asp Arg | | |
| 65 | 70 | 75 |
| Met Asn Gly Ile His Ile Asp Pro Gly Thr Ile Gly Val Tyr Gly Lys | | 80 |
| | 85 | 90 |
| Val His Leu Tyr Ser Ala Tyr Pro Lys Asn Ser Trp Thr His Leu Gly | | 95 |
| | 100 | 105 |
| Ala Asp Ile Ala Ser Gly Asn Glu Arg Ile Ile Val Glu Asp Ala Val | | 110 |
| | 115 | 120 |
| Asp Trp Arg Pro His Asp Lys Ile Val Leu Ser Ser Ser Ser Tyr Glu | | 125 |
| | 130 | 135 |
| Pro His Glu Ala Glu Val Leu Thr Val Lys Glu Val Lys Gly His His | | 140 |
| 145 | 150 | 155 |
| Val Arg Ile Tyr Glu Arg Leu Lys His Arg His Ile Gly Ser Val His | | 160 |
| | 165 | 170 |
| Val Thr Glu Asp Gly | | 175 |
| | 180 | |

<210> 2473

<211> 698

<212> DNA

<213> Homo sapiens

<400> 2473

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cgcactctgct ccaaggccca cagctggcag ccgnnngcat ccagaaccca taccggggca
120
ccgtggtgtg gatggtacnc tgagaatgtg gacatctctg tgaccctcta cagggacccc
180
cacgtggacc agtatgaggc caaagagtgg acatttatta ttgaaaatga gtctaagggg
240
cagcgggaagg tgctggccac ggccgaggtg gacctggccc gccatgccag ggcccgtgcc
300
ntgtccaagt ccnactgag gctgcggtg aagccaaagt cagtgaagac ggtgcaggct
360
gagctgagcc tcaactcttcc cgggggtgctg ctgcgggagg gccgtgccac ggacgatgac
420
atgcagagtc tcgcaagcct catgagtgtg aagcctagtg atgtgggcaa cttgggatgac
480
tttgctgaga gtgatgaaga tgaggctcat ggcccaggag ccccgagggc ccgggctcga
540
gtccccagc caggtgggct cacagcctgc tgtggatcga gactgccaag acctggggag
600
ggagggttac ccggggccacc agccacttgc tgtgcccgcc ctgtgatggg aactcattac
660
tgcccaggca gtcccaacca acccagcagc ctcaattg
698

<210> 2474

<211> 232

<212> PRT

<213> Homo sapiens

<400> 2474

Xaa Cys Thr Lys Lys Trp Gln Pro Asp Lys Leu Val Val Val Trp Thr
 1 5 10 15
 Arg Arg Asn Arg Arg Ile Cys Ser Lys Ala His Ser Trp Gln Pro Xaa
 20 25 30
 Ala Ser Arg Thr His Thr Gly Ala Pro Trp Cys Gly Trp Tyr Xaa Glu
 35 40 45
 Asn Val Asp Ile Ser Val Thr Leu Tyr Arg Asp Pro His Val Asp Gln
 50 55 60
 Tyr Glu Ala Lys Glu Trp Thr Phe Ile Ile Glu Asn Glu Ser Lys Gly
 65 70 75 80
 Gln Arg Lys Val Leu Ala Thr Ala Glu Val Asp Leu Ala Arg His Ala
 85 90 95
 Arg Ala Arg Ala Xaa Ser Lys Ser Xaa Leu Arg Leu Arg Leu Lys Pro
 100 105 110
 Lys Ser Val Lys Thr Val Gln Ala Glu Leu Ser Leu Thr Leu Ser Gly
 115 120 125
 Val Leu Leu Arg Glu Gly Arg Ala Thr Asp Asp Asp Met Gln Ser Leu
 130 135 140
 Ala Ser Leu Met Ser Val Lys Pro Ser Asp Val Gly Asn Leu Asp Asp
 145 150 155 160
 Phe Ala Glu Ser Asp Glu Asp Glu Ala His Gly Pro Gly Ala Pro Glu
 165 170 175
 Ala Arg Ala Arg Val Pro Gln Pro Gly Gly Leu Thr Ala Cys Cys Gly
 180 185 190
 Ser Arg Leu Pro Arg Pro Gly Glu Gly Gly Leu Pro Gly Pro Pro Ala
 195 200 205
 Thr Cys Cys Ala Arg Pro Val Met Gly Thr His Tyr Cys Pro Gly Ser
 210 215 220
 Pro Asn Gln Pro Ser Ser Leu Asn
 225 230

<210> 2475

<211> 1251

<212> DNA

<213> Homo sapiens

<400> 2475

ngcgcgcccc agatgcaggt gagcaagagg atgctggcgg ggggcgtgag gagcatgccc
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 agccccctcc tggcctgctg gcagcccatc ctctgctgg tgctgggctc agtgcgtgca
 120
 ggcteggcca cgggctgccc gccccgctgc gactgctccg cccaggaccg cgctgtgctg
 180
 tgccaccgca agcgctttgt ggcagtcccc gagggcatcc ccaccgagac gcgcctgctg
 240
 gacctaggca agaaccgcat caaaacgctc aaccaggacg agttcgccag cttcccgca
 300
 ctggaggagc tggagctcaa cgagaacatc gtgagcgccg tggagcccgg cgccttcaac
 360
 aacctcttca acctccggac gctgggtctc cgcagcaacc gcctgaagct catcccgcta
 420
 ggcgtcttca ctggcctcag caacctgacc aagctggaca tcagcgagaa caagatcggt
 480

atcctactgg actacatggt tcaggacctg tacaacctca agtcactgga ggttggcgac
 540
 aatgacctcg tctacatctc tcaccgcgcc ttcagcggcc tcaacagcct ggagcagctg
 600
 acgctggaga aatgcaacct gacctccatc cccaccgagg cgctgtccca cctgcacggc
 660
 ctcatcgctc tgaggctccg gcacctcaac atcaatgcca tccgggacta ctccttcaag
 720
 aggctgtacc gactcaagggt cttggagatc tcccactggc cctacttggg caccatgaca
 780
 cccaactgcc tctacggcct caacctgacg tccctgtcca tcacacactg caatctgacc
 840
 gctgtgccct acctggccgt ccgccaccta gtctatctcc gcttctcaa cctctcctac
 900
 aaccccatca gcaccattga gggctccatg ttgcatgagc tgctccggct gcaggagatc
 960
 cagctggtgg gcgggcagct ggccgggtgg agccctgcct tccgcggcct caactacctg
 1020
 cgcgtgctca atgtctctgg caaccagctg accacactgg aggaatcagt cttccactcg
 1080
 gtgggcaacc tggagacact catcctggac tccaacccgc tggcctgcga ctgtcggctc
 1140
 ctgtgggtgt tccggcgccg tggcctacaa acttcaaccg gcagcagccc acgtgcgcca
 1200
 cgcccgagtt tgtccagggg caaggagtgc aaggacttcc ctgatgtgct a
 1251

<210> 2476

<211> 417

<212> PRT

<213> Homo sapiens

<400> 2476

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ala | Pro | Glu | Met | Gln | Val | Ser | Lys | Arg | Met | Leu | Ala | Gly | Gly | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ser | Met | Pro | Ser | Pro | Leu | Leu | Ala | Cys | Trp | Gln | Pro | Ile | Leu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Val | Leu | Gly | Ser | Val | Leu | Ser | Gly | Ser | Ala | Thr | Gly | Cys | Pro | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Cys | Glu | Cys | Ser | Ala | Gln | Asp | Arg | Ala | Val | Leu | Cys | His | Arg | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Phe | Val | Ala | Val | Pro | Glu | Gly | Ile | Pro | Thr | Glu | Thr | Arg | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Leu | Gly | Lys | Asn | Arg | Ile | Lys | Thr | Leu | Asn | Gln | Asp | Glu | Phe | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Phe | Pro | His | Leu | Glu | Glu | Leu | Glu | Leu | Asn | Glu | Asn | Ile | Val | Ser |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ala | Val | Glu | Pro | Gly | Ala | Phe | Asn | Asn | Leu | Phe | Asn | Leu | Arg | Thr | Leu |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Gly | Leu | Arg | Ser | Asn | Arg | Leu | Lys | Leu | Ile | Pro | Leu | Gly | Val | Phe | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Leu | Ser | Asn | Leu | Thr | Lys | Leu | Asp | Ile | Ser | Glu | Asn | Lys | Ile | Val |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Ile | Leu | Leu | Asp | Tyr | Met | Phe | Gln | Asp | Leu | Tyr | Asn | Leu | Lys | Ser | Leu |

165 170 175
 Glu Val Gly Asp Asn Asp Leu Val Tyr Ile Ser His Arg Ala Phe Ser
 180 185 190
 Gly Leu Asn Ser Leu Glu Gln Leu Thr Leu Glu Lys Cys Asn Leu Thr
 195 200 205
 Ser Ile Pro Thr Glu Ala Leu Ser His Leu His Gly Leu Ile Val Leu
 210 215 220
 Arg Leu Arg His Leu Asn Ile Asn Ala Ile Arg Asp Tyr Ser Phe Lys
 225 230 235 240
 Arg Leu Tyr Arg Leu Lys Val Leu Glu Ile Ser His Trp Pro Tyr Leu
 245 250 255
 Asp Thr Met Thr Pro Asn Cys Leu Tyr Gly Leu Asn Leu Thr Ser Leu
 260 265 270
 Ser Ile Thr His Cys Asn Leu Thr Ala Val Pro Tyr Leu Ala Val Arg
 275 280 285
 His Leu Val Tyr Leu Arg Phe Leu Asn Leu Ser Tyr Asn Pro Ile Ser
 290 295 300
 Thr Ile Glu Gly Ser Met Leu His Glu Leu Leu Arg Leu Gln Glu Ile
 305 310 315 320
 Gln Leu Val Gly Gly Gln Leu Ala Gly Trp Ser Pro Ala Phe Arg Gly
 325 330 335
 Leu Asn Tyr Leu Arg Val Leu Asn Val Ser Gly Asn Gln Leu Thr Thr
 340 345 350
 Leu Glu Glu Ser Val Phe His Ser Val Gly Asn Leu Glu Thr Leu Ile
 355 360 365
 Leu Asp Ser Asn Pro Leu Ala Cys Asp Cys Arg Leu Leu Trp Val Phe
 370 375 380
 Arg Arg Arg Gly Leu Gln Thr Ser Thr Gly Ser Ser Pro Arg Ala Pro
 385 390 395 400
 Arg Pro Ser Leu Ser Arg Gly Lys Glu Phe Lys Asp Phe Pro Asp Val
 405 410 415
 Leu

<210> 2477

<211> 548

<212> DNA

<213> Homo sapiens

<400> 2477

nagactgcga tcagacgcgc gtgccagct gaaccaggtg cgtgagaagg ctgccttcag
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 gtggccgggg gctccctcca gctgtctctg gacggaggga cgggaagtgg ccagaagggg
 120
 aagtgtgagg agttcccgtc cagcctgtca tcagtctccc caggtcttga agcggcggcc
 180
 ctgctcctgg ccgtgaccat ggaccctctg gagacccta tcaaggatgg catcctctac
 240
 cagcagcatg tcaagtttgg caagaagtgc tggcggaagg tgtgggctct gctgtatgca
 300
 ggaggcccat caggcgtggc acggctggag aactgggagg tccgggatgg tggcctggga
 360
 gcagcgggtg acaggtcggc ggggcctggc cggcgagggg agcgacgggt catccgcctg
 420

gctgactgtg tgtccgtgct gccggctgac ggcgagagct gcccccgga caccggtgcc
 480
 ttccctgctca ccaccaccga gcgaagccat ctactggctg ctcagcaccg ccaggcctgg
 540
 atggggccc
 548

<210> 2478<211> 113
 <212> PRT
 <213> Homo sapiens

<400> 2478
 Leu Glu Thr Pro Ile Lys Asp Gly Ile Leu Tyr Gln Gln His Val Lys
 1 5 10 15
 Phe Gly Lys Lys Cys Trp Arg Lys Val Trp Ala Leu Leu Tyr Ala Gly
 20 25 30
 Gly Pro Ser Gly Val Ala Arg Leu Glu Asn Trp Glu Val Arg Asp Gly
 35 40 45
 Gly Leu Gly Ala Ala Gly Asp Arg Ser Ala Gly Pro Gly Arg Arg Gly
 50 55 60
 Glu Arg Arg Val Ile Arg Leu Ala Asp Cys Val Ser Val Leu Pro Ala
 65 70 75 80
 Asp Gly Glu Ser Cys Pro Arg Asp Thr Gly Ala Phe Leu Leu Thr Thr
 85 90 95
 Thr Glu Arg Ser His Leu Leu Ala Ala Gln His Arg Gln Ala Trp Met
 100 105 110
 Gly

<210> 2479
 <211> 324
 <212> DNA
 <213> Homo sapiens

<400> 2479
 gaattcatgg aggtctatga ggaggatgaa gaatatgcgt atgaaaaata tgaaacccat
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 ttcggcacga gctggatgga ggagaccgca ggcaccttct cactgaactg gtatcgcagc
 120
 aggtactgga atgacaatga agcagcagaa aggcttgcgt tgatgtgggc taaaaccttc
 180
 aaatatgcgt cgataaacgt ctctggcag accgggatta gcaatagcga cgacgagggc
 240
 aatgaagatg aagacatgtt ctacgccggt atctccattc cgctgggagg cggggcgtag
 300
 tctaactcct ggtatcgtga atat
 324

<210> 2480
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 2480

Glu Phe Met Glu Val Tyr Glu Glu Asp Glu Glu Tyr Ala Tyr Glu Lys
 1 5 10 15
 Tyr Glu Thr His Phe Gly Thr Ser Trp Met Glu Glu Thr Ala Gly Thr
 20 25 30
 Phe Ser Leu Asn Trp Tyr Arg Ser Arg Tyr Trp Asn Asp Asn Glu Ala
 35 40 45
 Ala Glu Arg Leu Ala Leu Met Trp Ala Lys Thr Phe Lys Tyr Ala Ser
 50 55 60
 Ile Asn Val Ser Trp Gln Thr Gly Ile Ser Asn Ser Asp Asp Glu Gly
 65 70 75 80
 Asn Glu Asp Glu Asp Met Phe Tyr Ala Gly Ile Ser Ile Pro Leu Gly
 85 90 95
 Gly Gly Ala Tyr Ser Asn Ser Trp Tyr Arg Glu Tyr
 100 105

<210> 2481

<211> 484

<212> DNA

<213> Homo sapiens

<400> 2481

gcgttcacta acgcttcaac aaactcttac aagcgtcttg ttcctgggtt cgaagcacct
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 gttatgttgg ctactcagc tcgtaaccgt tctgcttcta tccgtatccc atacgttgca
 120
 agccctaaag gcaagcgtat tgaagctcgt ttccctgata caaccgctaa cccataccta
 180
 gcattttcag ctatgttgat ggctgggtatc gatgggtatca aaaacaagat tcaccctggc
 240
 gatgcagcag acaaagattt gtacgacctt ccagctgaag aagcagccgc tatccctcaa
 300
 gttgctagca gcttagaaga agcgtttaag tgcctagatc aagaccgtga gttcttgact
 360
 caagggtggcg ttttctctga cgacatgata gatgcttaca tcgctcttaa agcagaagaa
 420
 gcacagcgtg ttgcaatgac aacaacacca cttgagttcg aactttacta cagcctataa
 480
 gctt
 484

<210> 2482

<211> 159

<212> PRT

<213> Homo sapiens

<400> 2482

Ala Phe Thr Asn Ala Ser Thr Asn Ser Tyr Lys Arg Leu Val Pro Gly
 1 5 10 15
 Phe Glu Ala Pro Val Met Leu Ala Tyr Ser Ala Arg Asn Arg Ser Ala
 20 25 30
 Ser Ile Arg Ile Pro Tyr Val Ala Ser Pro Lys Gly Lys Arg Ile Glu
 35 40 45
 Ala Arg Phe Pro Asp Pro Thr Ala Asn Pro Tyr Leu Ala Phe Ser Ala
 50 55 60

Met Leu Met Ala Gly Ile Asp Gly Ile Lys Asn Lys Ile His Pro Gly
 65 70 75 80
 Asp Ala Ala Asp Lys Asp Leu Tyr Asp Leu Pro Ala Glu Glu Ala Ala
 85 90 95
 Ala Ile Pro Gln Val Ala Ser Ser Leu Glu Glu Ala Leu Lys Cys Leu
 100 105 110
 Asp Gln Asp Arg Glu Phe Leu Thr Gln Gly Gly Val Phe Ser Asp Asp
 115 120 125
 Met Ile Asp Ala Tyr Ile Ala Leu Lys Ala Glu Glu Ala Gln Arg Val
 130 135 140
 Ala Met Thr Thr Thr Pro Leu Glu Phe Glu Leu Tyr Tyr Ser Leu
 145 150 155

<210> 2483

<211> 477

<212> DNA

<213> Homo sapiens

<400> 2483

acgcgtgtta gccaaatctt gggttcctccc gttctctcct taccgcagcc tgaggccccc
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 120
 cgccccagc cgcttcctcc tggccttggt ccccttccc tgtgaaggag agaacagttt
 180
 cggtggccc tgagatgctg gcaggcctgc agtcagggca gtgggcgcct cccaccttga
 240
 aatggtcctt cgtggtgcag ttctgcttac ggggtagact ttgttgctt ccacagagga
 300
 cagttagggt gggcaggaag gaagtctctg ccacaagtct gcattccagg ctgtttccag
 360
 aagtgggaat tctctcgtgc cctggagtct gggaatgcat ttttagtttc ccagcttcag
 420
 gtagaattga aattgagtga gccaaaccac cacatccatc tggagccagg aactagt
 477

<210> 2484

<211> 130

<212> PRT

<213> Homo sapiens

<400> 2484

Met His Ser Gln Thr Pro Gly His Glu Arg Ile Pro Thr Ser Gly Asn
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 Ser Leu Glu Cys Arg Leu Val Ala Glu Thr Ser Phe Leu Pro Thr Leu
 20 25 30
 Thr Val Leu Cys Gly Arg Gln Gln Ser Leu Pro Arg Lys Gln Asn Cys
 35 40 45
 Thr Thr Lys Asp His Phe Lys Val Gly Gly Ala His Cys Pro Asp Cys
 50 55 60
 Arg Pro Ala Ser Ile Ser Gly Pro Ala Glu Thr Val Leu Ser Phe Thr
 65 70 75 80
 Gly Lys Gly Glu Gln Gly Gln Glu Glu Ala Ala Gly Asp Ala Gly Asp
 85 90 95

Gly Val Ala Asp Arg Gly Ser Glu Val Ser Ser Glu Ala Ala Cys Ser
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 Pro Glu Gly Pro Gln Ala Arg Val Arg Arg Glu Arg Glu Glu Pro Arg
 115 120 125
 Phe Gly
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<210> 2485
 <211> 608
 <212> DNA
 <213> Homo sapiens

<400> 2485
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 120
 gagctgggtg gtatgaactt catggccatc agcaaagacg gtcagctcgt caccctcgag
 180
 ctgctggca ccactctgcg tggcgtgacc cgcaagtcca ttctggaagt tgccccgac
 240
 ctcggtcttg aaccagtgga gcgcaagatc gatgttgacg agctccttga tggcgttcgc
 300
 tctggcgagt tcccgaagt cttcgctgtt ggtaccgccg cggttgtcac accgatcggc
 360
 tctttcctag atggagatac cgacgtgaag gtctctgagc ccaccggaaa gaccacgatg
 420
 gagatccgtc gccgtctgct ggatatccag ttcggacgcg ctgaggacac ccattggctgg
 480
 ttgaagcgag tctgctgacg gcgtcgacga ccattggggc cggccccaat gatgtgttca
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 608

<210> 2486
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 2486
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 20 25 30
 Ala Val Glu His Arg Trp Ile Glu Leu Gly Gly Met Asn Phe Met
 35 40 45
 Ala Ile Ser Lys Asp Gly Gln Leu Val Thr Pro Glu Leu Ala Gly Thr
 50 55 60
 Ile Leu Arg Gly Val Thr Arg Lys Ser Ile Leu Glu Val Ala Pro Asp
 65 70 75 80
 Leu Gly Leu Glu Pro Val Glu Arg Lys Ile Asp Val Asp Glu Leu Leu
 85 90 95

Asp Gly Val Arg Ser Gly Glu Phe Pro Glu Val Phe Ala Cys Gly Thr
 100 105 110
 Ala Ala Val Val Thr Pro Ile Gly Ser Phe Leu Asp Gly Asp Thr Asp
 115 120 125
 Val Lys Val Ser Glu Pro Thr Gly Lys Thr Thr Met Glu Ile Arg Arg
 130 135 140
 Arg Leu Leu Asp Ile Gln Phe Gly Arg Ala Glu Asp Thr His Gly Trp
 145 150 155 160
 Leu Lys Arg Val Cys
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<210> 2487

<211> 339

<212> DNA

<213> Homo sapiens

<400> 2487

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 aaggaggccg caagcagtgt ggacgtgcag gccctgcgga ggctctttga ggccgtgccc
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 240
 gagcaggcct ttggggagct gacacgggtc agcacggaag ttgctcaact gaaggaacag
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 accttggtaa ggctgctgga cattgaagag gctgtgcac
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<210> 2488

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2488

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 20 25 30
 Leu Thr Gln Val Gln Ala Leu Glu Lys Glu Ala Ala Ser Ser Val Asp
 35 40 45
 Val Gln Ala Leu Arg Arg Leu Phe Glu Ala Val Pro Gln Leu Gly Gly
 50 55 60
 Ala Ala Pro Gln Ala Pro Ala Ala His Gln Lys Pro Glu Ala Ser Val
 65 70 75 80
 Glu Gln Ala Phe Gly Glu Leu Thr Arg Val Ser Thr Glu Val Ala Gln
 85 90 95
 Leu Lys Glu Gln Thr Leu Val Arg Leu Leu Asp Ile Glu Glu Ala Val
 100 105 110
 His

<210> 2489

<211> 594
 <212> DNA
 <213> Homo sapiens

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 ggtgctgact tcgtactgca caacagcctg ttcggaattg ctcacttcca caacgtgac
 240
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 420
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 480
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<210> 2490
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 2490
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 Ile Thr Ser Gln Val Leu Trp Thr Leu Gly Phe Met Val Thr Phe Ala
 35 40 45
 Ile Gly Gly Met Thr Gly Val Leu Leu Ala Ile Pro Gly Ala Asp Phe
 50 55 60
 Val Leu His Asn Ser Leu Phe Gly Ile Ala His Phe His Asn Val Ile
 65 70 75 80
 Ile Gly Gly Ala Val Phe Gly Tyr Ile Ala Gly Phe Ser Phe Tyr Phe
 85 90 95
 Pro Lys Ala Phe Gly Phe Lys Leu His Glu Ser Trp Gly Lys Ala Ala
 100 105 110
 Phe Trp Phe Trp Ile Ser Gly Phe Val Ala Phe Met Pro Leu Tyr
 115 120 125
 Ala Leu Gly Phe Met Gly Met Thr Arg Cys Leu Asn Ala Pro Pro Thr
 130 135 140
 Pro Glu Trp Val Pro Tyr Leu Tyr Val Ala Met Val Gly Ala Leu Met
 145 150 155 160
 Ile Ala Val Gly Ile Ala Cys Gln Leu Ile Gln Leu Tyr Val Ser Val
 165 170 175

Arg Asp Arg Lys Gln Asn Met Cys Glu Ser Gly Asp Pro Trp Asn Ala
 180 185 190
 His Thr Leu Glu Trp Ser
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<210> 2491
 <211> 592
 <212> DNA
 <213> Homo sapiens

<400> 2491
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 300
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 420
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<210> 2492
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 2492
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 20 25 30
 Thr Asn Met Ser Arg Ser Gln Asp Asp Leu Ala Val Phe Glu Ser Gly
 35 40 45
 Thr Val Phe Arg Ala Val Thr Pro Ala Ala Ala Pro Arg Pro Gly Val
 50 55 60
 Asp Glu Arg Pro Ser Asp Glu Val Leu Ala Glu Ile Asp Ala Ala Leu
 65 70 75 80
 Pro Ala Gln Pro Arg Met Leu Ala Ala Val Ile Cys Gly Ser Trp Leu
 85 90 95
 Pro Asp Arg Trp Asp Gly Glu Ser Val Lys Ala Asp Trp Arg His Ala
 100 105 110
 Val Leu Val Ala Gln Lys Ala Ala Asp Ala Leu Gly Val Arg Leu Val
 115 120 125

Arg Lys Ala Asp Arg Gln Ala Pro Trp His Pro Gly Arg Cys Ala Ala
 130 135 140
 Leu Ile Val Asp Gly Lys Val Ile Gly His Ala Gly Glu Leu His Pro
 145 150 155 160
 Thr Val Val Ser Lys Ala Gly Leu Pro Gln Arg Thr Cys Ala Val Glu
 165 170 175
 Phe Asn Leu Asp Ala Leu Val Ala Cys Ala Pro Ser Gly Gly Glu Val
 180 185 190
 Met Val Ile Ser Arg
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<210> 2493

<211> 418

<212> DNA

<213> Homo sapiens

<400> 2493

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 240
 atcccgcctgg ttgaaaatgc caacctagac accgtgtggc tgggggttgcg cgtcattggc
 300
 aagggcgcca ggcggggagc cgaccgctct tcctcggctc acctccagct gacgtcgggtg
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 418

<210> 2494

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2494

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 20 25 30
 Thr Val Val Tyr Ser Arg Val Ala Leu Ser Asn Tyr Leu Met Leu Glu
 35 40 45
 Pro His Ser Val Ile Lys Thr Ile Asp Ser Ser Leu Pro Thr Gly Ser
 50 55 60
 Ile Asn Val Ser Leu Ala Glu Glu Ala Gln Lys Tyr Gly Ala Gln Val
 65 70 75 80
 Ile Pro Leu Val Glu Asn Ala Asn Leu Asp Thr Val Trp Leu Gly Leu
 85 90 95
 Arg Val Ile Gly Lys Gly Ala Arg Arg Gly Ala Asp Arg Ser Ser Ser
 100 105 110
 Val Tyr Leu Gln Leu Thr Ser Val Glu Gly Pro Gly Asp Phe Thr Ala
 115 120 125

Tyr Ile Thr Gly Thr Phe Gly Arg Pro Gln Ile
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<210> 2495

<211> 1478

<212> DNA

<213> Homo sapiens

<400> 2495

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180
cacctgcagc cccgcgctct acccggttca agcatggctg accaggcgcc cttcgacacg
240
gacgtcaaca ccctgaccog cttcgtcatg gaggagggca ggaaggcccg cggcacgggc
300
gagttgaccc agctgctcaa ctcgctctgc acagcagtca aagccatctc ttcggcggtg
360
cgcaaggcgg gcatcgcgca cctctatggc attgctgggt ctaccaacgt gacaggtgat
420
caagttaaga agctggacgt cctctccaac gacctgggta tgaacatgtt aaagtcatcc
480
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720
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900
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960
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1320

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cctagagagc agaaataaaa agcatgacta tttccacccat caaatgctgt agaagcttg
 1380
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<210> 2496

<211> 338

<212> PRT

<213> Homo sapiens

<400> 2496

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Asp | Gln | Ala | Pro | Phe | Asp | Thr | Asp | Val | Asn | Thr | Leu | Thr | Arg |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Phe | Val | Met | Glu | Gly | Arg | Lys | Ala | Arg | Gly | Thr | Gly | Glu | Leu | Thr | |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Gln | Leu | Leu | Asn | Ser | Leu | Cys | Thr | Ala | Val | Lys | Ala | Ile | Ser | Ser | Ala |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Val | Arg | Lys | Ala | Gly | Ile | Ala | His | Leu | Tyr | Gly | Ile | Ala | Gly | Ser | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Val | Thr | Gly | Asp | Gln | Val | Lys | Lys | Leu | Asp | Val | Leu | Ser | Asn | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Val | Met | Asn | Met | Leu | Lys | Ser | Ser | Phe | Ala | Thr | Cys | Val | Leu | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Glu | Glu | Asp | Lys | His | Ala | Ile | Ile | Val | Glu | Pro | Glu | Lys | Arg | Gly |
| | | 100 | | | | | | 105 | | | | | | 110 | |
| Lys | Tyr | Val | Val | Cys | Phe | Asp | Pro | Leu | Asp | Gly | Ser | Ser | Asn | Ile | Asp |
| | 115 | | | | | | 120 | | | | | | 125 | | |
| Cys | Leu | Val | Ser | Val | Gly | Thr | Ile | Phe | Gly | Ile | Tyr | Arg | Lys | Lys | Ser |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Thr | Asp | Glu | Pro | Ser | Glu | Lys | Asp | Ala | Leu | Gln | Pro | Gly | Arg | Asn | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Val | Ala | Ala | Gly | Tyr | Ala | Leu | Tyr | Gly | Ser | Ala | Thr | Met | Leu | Val | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ala | Met | Asp | Cys | Gly | Val | Asn | Cys | Phe | Met | Leu | Asp | Pro | Ala | Ile | Gly |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Glu | Phe | Ile | Leu | Val | Asp | Lys | Asp | Val | Lys | Ile | Lys | Lys | Lys | Gly | Lys |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ile | Tyr | Ser | Leu | Asn | Glu | Gly | Tyr | Ala | Lys | Asp | Phe | Asp | Pro | Ala | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Glu | Tyr | Ile | Gln | Arg | Lys | Lys | Phe | Pro | Pro | Asp | Asn | Ser | Ala | Pro |
| 225 | | | | 230 | | | | | | 235 | | | | 240 | |
| Tyr | Gly | Ala | Arg | Tyr | Val | Gly | Ser | Met | Val | Ala | Asp | Val | His | Arg | Thr |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Val | Tyr | Gly | Gly | Ile | Phe | Leu | Tyr | Pro | Ala | Asn | Lys | Lys | Ser | Pro |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Asn | Gly | Lys | Leu | Arg | Leu | Leu | Tyr | Glu | Cys | Asn | Pro | Met | Ala | Tyr | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Met | Glu | Lys | Ala | Gly | Gly | Met | Ala | Thr | Thr | Gly | Lys | Glu | Ala | Val | Leu |
| 295 | | | | | 300 | | | | | | | | | | 290 |
| Asp | Val | Ile | Pro | Thr | Asp | Ile | His | Gln | Arg | Ala | Pro | Val | Ile | Leu | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Ser | Pro | Asp | Asp | Val | Leu | Glu | Phe | Leu | Lys | Val | Tyr | Glu | Lys | His | Ser |

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<210> 2497
<211> 399
<212> DNA
<213> Homo sapiens

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atcctgtcag cgcgtggcct ggaccacata ctggaacgga tgcgcaccct ggagtatcag
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240
gaccgtctcg tcgcggccgg tggctatggc gcctctgcag aggcagcccg aatcgcgtcg
300
aacttggggc ttgacgaccg cgtcctttcc cagccgttga aaaacctctc ggggtggtcag
360
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399

<210> 2498
<211> 133
<212> PRT
<213> Homo sapiens

<400> 2498
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35 40 45
His Ile Leu Glu Arg Met Arg Thr Leu Glu Tyr Gln Met Ala Asn Gly
50 55 60
Ser Glu Asp Asp Arg Ala Val Ala Met Asp Lys Tyr Ala Lys Ala Glu
65 70 75 80
Asp Arg Leu Val Ala Ala Gly Gly Tyr Gly Ala Ser Ala Glu Ala Ala
85 90 95
Arg Ile Ala Ser Asn Leu Gly Leu Asp Asp Arg Val Leu Ser Gln Pro
100 105 110
Leu Lys Asn Leu Ser Gly Gly Gln Arg Arg Arg Val Glu Leu Ala Arg
115 120 125
Ile Leu Phe Ser Gly
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<210> 2499
<211> 348
<212> DNA
<213> Homo sapiens

<400> 2499

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 240
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<210> 2500

<211> 116

<212> PRT

<213> Homo sapiens

<400> 2500

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Gly | Glu | Asp | Pro | Phe | Tyr | Met | Ala | Tyr | His | Asp | Thr | Glu | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Val | Pro | Glu | Tyr | Asp | Asp | Arg | Ala | Leu | Tyr | Glu | Lys | Leu | Ile | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Asp | Gly | Phe | Gln | Ala | Gly | Leu | Ser | Trp | Ile | Thr | Ile | Leu | Arg | Lys | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Asn | Phe | Arg | Lys | Ala | Phe | Asp | Asp | Phe | Gln | Pro | Glu | Lys | Ile | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Tyr | Asn | Glu | Lys | Lys | Val | His | Ala | Leu | Met | Asn | Asp | Ala | Gly | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Val | Arg | Asn | Arg | Ala | Lys | Ile | Glu | Gly | Thr | Ile | Ala | Ser | Ala | Lys | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Leu | Asp | Ile | Met | Glu | Lys | Gly | Pro | Gly | Phe | Ser | Arg | Leu | Leu | Trp |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Asp | Phe | Val | Asp | | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 2501

<211> 569

<212> DNA

<213> Homo sapiens

<400> 2501

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 180
 ctttcaagag tcaaacaatt ttactggtgc atcatttcca tttattcttt ctcttttgca
 240
 taataaaaacc actcttaaga ttctaccttg gttagttaga gacaacagtt ctctggaaag
 300

tagattctat agcttcaact ccctgaagag atgtgtgcta atttacatca aaaaaatcct
 360
 taagggtata aaatatgccca agaactgtca acatcacaga ttaccactgg tagcttctgg
 420
 tatattgtta agtttccact taatttttaa gggacactag agaattagta tgactcacct
 480
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 540
 gatgtgaaat gctgaatcat taatcacag
 569

<210> 2502

<211> 100

<212> PRT

<213> Homo sapiens

<400> 2502

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ile | Ala | Gly | Val | Arg | Tyr | Gly | Phe | Gln | Glu | Ser | Asn | Asn | Phe | Thr |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Gly | Ala | Ser | Phe | Pro | Phe | Ile | Leu | Ser | Leu | Leu | His | Asn | Lys | Thr | Thr |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Lys | Ile | Leu | Pro | Trp | Leu | Val | Arg | Asp | Asn | Ser | Ser | Leu | Glu | Ser |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Arg | Phe | Tyr | Ser | Phe | Asn | Ser | Leu | Lys | Arg | Cys | Val | Leu | Ile | Tyr | Ile |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Lys | Lys | Ile | Leu | Lys | Gly | Ile | Lys | Tyr | Ala | Lys | Asn | Cys | Gln | His | His |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Arg | Leu | Pro | Leu | Val | Ala | Ser | Gly | Ile | Leu | Leu | Ser | Phe | His | Leu | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Lys | Gly | His | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 100 |

<210> 2503

<211> 419

<212> DNA

<213> Homo sapiens

<400> 2503

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 aaggccttgc tacctcagca gtcctacagc ttggcccagc cgtgttatcc tccagtctgc
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 240
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 300
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<210> 2504

<211> 121
 <212> PRT
 <213> Homo sapiens

<400> 2504
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 20 25 30
 Pro Pro His Tyr Val Gly Pro His Ile Pro Ser Ser Leu Ala Ser Pro
 35 40 45
 Met Arg Leu Ser Thr Pro Ser Ala Ser Pro Ala Ile Pro Pro Leu Val
 50 55 60
 His Cys Ala Asp Lys Ser Leu Pro Trp Lys Met Gly Val Ser Pro Gly
 65 70 75 80
 Asn Pro Val Asp Ser His Ala Tyr Pro His Ile Gln Asn Ser Lys Gln
 85 90 95
 Pro Arg Val Pro Ser Ala Lys Ala Val Thr Ser Gly Leu Pro Gly Asp
 100 105 110
 Thr Ala Leu Leu Leu Pro Pro Ser Arg
 115 120

<210> 2505
 <211> 540
 <212> DNA
 <213> Homo sapiens

<400> 2505
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 ccgctcgtgt tgggtccggtt ggctcgggttc accggcgatc ggcgtctgat gggccaatgg
 120
 acgaatgggc gtgtcatggc cgccatcgcg tggatcgtcg tggcagcagt ctcggctctc
 180
 aacgtgggttc tcgtcgtcga gacggtcatg ggtgcatgat ccttgagggc agttttcttg
 240
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 360
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 420
 cgtcgtgtgc agtcgtcccg gctgttgtgt cggtgtcggt gggtaatggt tcgacgaccc
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 540

<210> 2506
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 2506
 Ser Gly Ala Asn Pro Thr Gln Ala Leu Val Trp Ser Gln Val Leu Leu

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | 5 | | 10 | | 15 | | | | | | | | | |
| Ser | Met | Gly | Leu | Pro | Leu | Val | Leu | Val | Pro | Leu | Ala | Arg | Phe | Thr | Gly |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Asp | Arg | Arg | Leu | Met | Gly | Gln | Trp | Thr | Asn | Gly | Arg | Val | Met | Ala | Ala |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ile | Ala | Trp | Ile | Val | Val | Ala | Ala | Val | Ser | Ala | Leu | Asn | Val | Val | Leu |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Val | Val | Glu | Thr | Val | Met | Gly | Ala | | | | | | | | |
| 65 | | | | | 70 | | | | | | | | | | |

<210> 2507

<211> 922

<212> DNA

<213> Homo sapiens

<400> 2507

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<210> 2508

<211> 278

<212> PRT

<213> Homo sapiens

<400> 2508

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 20 25 30
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 35 40 45
 Asp Gly Thr Phe Asn Tyr Ser Pro Asp Val Tyr Cys Ser Lys Tyr Asn
 50 55 60
 Glu Ala Thr Gly Val Cys Pro Asp Gly Asp Glu Cys Pro Tyr Leu His
 65 70 75 80
 Arg Thr Thr Gly Asp Thr Glu Arg Lys Tyr His Leu Arg Tyr Tyr Lys
 85 90 95
 Thr Gly Thr Cys Ile His Glu Thr Asp Ala Arg Gly His Cys Val Lys
 100 105 110
 Asn Gly Leu His Cys Ala Phe Ala His Gly Pro His Asp Leu Arg Ser
 115 120 125
 Pro Val Tyr Asp Ile Arg Glu Leu Gln Ala Met Glu Ala Leu Gln Asn
 130 135 140
 Gly Gln Thr Thr Val Glu Gly Ser Ile Glu Gly Gln Ser Ala Gly Ala
 145 150 155 160
 Ala Ser His Ala Met Ile Glu Lys Ile Leu Ser Glu Glu Pro Arg Trp
 165 170 175
 Gln Glu Thr Ala Tyr Val Leu Gly Asn Tyr Lys Thr Glu Pro Cys Lys
 180 185 190
 Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro Tyr Tyr His
 195 200 205
 Asn Ser Lys Asp Arg Arg Arg Ser Pro Arg Lys His Lys Tyr Arg Ser
 210 215 220
 Ser Pro Cys Pro Asn Val Lys His Gly Asp Glu Trp Gly Asp Pro Gly
 225 230 235 240
 Lys Cys Glu Asn Gly Asp Ala Cys Gln Tyr Cys His Thr Arg Thr Glu
 245 250 255
 Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys Cys Asn Gly Arg
 260 265 270
 Gly Gly Gly Val Arg Glu
 275

<210> 2509

<211> 348

<212> DNA

<213> Homo sapiens

<400> 2509

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 180
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 240
 caccgctccc agcggaatct cgtagactta gcgccagggt tggttaaggcg tgtagcggtc
 300

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348

<210> 2510

<211> 108

<212> PRT

<213> Homo sapiens

<400> 2510

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Pro | Arg | Gln | Gly | Pro | Ile | Leu | Arg | Ala | Leu | Val | Ala | Leu | Asp |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Phe | Val | Asp | Ala | Arg | Glu | Val | Leu | Leu | Pro | Ala | Thr | Ile | Gly | Leu | Asp |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Val | His | Glu | Arg | Val | Glu | Pro | Gly | Lys | Thr | Glu | Thr | Gln | Pro | Ile | Leu |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Gly | Asp | Ala | Gly | Arg | Gln | Val | Ala | Glu | Gly | Lys | His | Val | Asp | His | Val |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Arg | Thr | Asp | Thr | Thr | Asp | His | Gly | His | Arg | Ser | Gln | Arg | Asn | Leu | Val |
| 65 | | | | 70 | | | | 75 | | | | | 80 | | |
| Asp | Leu | Ala | Pro | Gly | Leu | Val | Arg | Arg | Val | Ala | Val | Val | Thr | Thr | Gly |
| | | | 85 | | | | 90 | | | | | 95 | | | |
| Asp | Leu | Glu | Leu | Gly | Ala | Ser | Lys | Ser | Ser | Ala | Val | | | | |
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<210> 2511

<211> 663

<212> DNA

<213> Homo sapiens

<400> 2511

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180
gcattacgcc caggacgcgt tgctggcctg gccgagatcg tcgtcaacgg tcaacctttt
240
accgtcactg acgccactga ggatgaacta gctctcactg cttgggctcg tatectctc
300
gagggaactc ccatcgccat ggatggatcg tggcagctgc atcgccgctg agcggccccct
360
gagccagttc ggctcgctaa gcgcttcggt ggtgagcaat cgaacacctc gatcatgggtg
420
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480
accgtgcata gcgcccctcaa cgatgccggg atctcatcgg tggccacatt gtacggcttt
540
atgtccggac agatccccgc tgaggaacac atcccggctg atctagctat gatcattgag
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660
gac
663

<210> 2512
 <211> 221
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Asn Glu Gln Asp Leu Gln Val Leu Pro Val Ile Ala His Val Gly Tyr
 35 40 45
 Pro Gln Ala Ala Asp Glu Tyr Tyr Gln Leu Leu Leu Ala Leu Arg Pro
 50 55 60
 Gly Arg Val Ala Gly Leu Ala Glu Ile Val Val Asn Gly Gln Pro Phe
 65 70 75 80
 Thr Val Thr Asp Ala Thr Glu Asp Glu Leu Ala Leu Thr Ala Trp Ala
 85 90 95
 Arg Ile Leu Leu Glu Gly Thr Pro Ile Ala Met Asp Gly Ser Trp Gln
 100 105 110
 Leu His Arg Arg Arg Ala Ala Pro Glu Pro Val Arg Phe Ala Lys Arg
 115 120 125
 Phe Gly Gly Glu Gln Ser Asn Thr Ser Ile Met Val Gly Asp Ala Ile
 130 135 140
 Ile Ile Lys Met Phe Arg Arg Leu Glu Pro Gly Asp Asn Leu Asp Ile
 145 150 155 160
 Thr Val His Ser Ala Leu Asn Asp Ala Gly Ile Ser Ser Val Ala Thr
 165 170 175
 Leu Tyr Gly Phe Met Ser Gly Gln Ile Pro Ala Glu Glu His Ile Pro
 180 185 190
 Val Asp Leu Ala Met Ile Ile Glu Arg Leu Pro Gln Pro Arg Asp Gly
 195 200 205
 Trp Glu Leu Ile Thr Ala Lys Ala Val Asp Leu Val Asp
 210 215 220

<210> 2513
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 2513
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 120
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 180
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 240
 cagggcaaag agggtcagca tccgaaactg gagcatgatt gatgccaaacc tgaaattgct
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 360

ggaaggtg
368

<210> 2514
<211> 93
<212> PRT
<213> Homo sapiens

<400> 2514
Leu Ala Gly Met Ile Thr Phe Thr Cys Asn Leu Ala Glu Asn Val Ser
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Ser Lys Val Arg Gln Leu Asp Leu Ala Lys Asn Arg Leu Tyr Gln Ala
20 25 30
Ile Gln Arg Ala Asp Asp Ile Leu Asp Leu Lys Phe Cys Met Asp Gly
35 40 45
Val Gln Thr Ala Leu Arg Ser Glu Asp Tyr Glu Gln Ala Ala Ala His
50 55 60
Ile His Arg Tyr Leu Cys Leu Asp Lys Ser Val Ile Glu Leu Ser Arg
65 70 75 80
Gln Gly Lys Glu Gly Gln His Pro Lys Leu Glu His Asp
85 90

<210> 2515
<211> 351
<212> DNA
<213> Homo sapiens

<400> 2515
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120
tatcagtcca tccctaaaag ccaaccaggc tctcccgagg gaggcaggaa atccctgctc
180
cctccatccc ccaccgggaa tgctgcaggg ggcttgaggg aggcgacaca gtggggagct
240
ctgggtgcag gtgggcagac aatgggccaac cacaccccct cagccccgct ccagtatcag
300
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351

<210> 2516
<211> 98
<212> PRT
<213> Homo sapiens

<400> 2516
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1 5 10 15
Thr Gly Gln Leu Glu Tyr Gln Ser Ile Pro Lys Ser Gln Pro Gly Ser
20 25 30
Pro Glu Gly Gly Arg Lys Ser Leu Leu Pro Pro Ser Pro Thr Gly Asn.
35 40 45
Ala Ala Gly Gly Leu Arg Glu Ala Thr Gln Trp Gly Ala Leu Gly Ala

[illegible]

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<210> 2517
<211> 356
<212> DNA
<213> Homo sapiens
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120
cctgtcacca accaaacccc atgggcctat tcagcagccc caacttggct ggtctggccg
180
aggccacaca ttccctgggg actgagctcc aaggtgctgg gtccctgagc aggaagcggc
240
cagtgttgag tgggcagtgt ctcaactccag cccctccttc ccaggccagt tcttctcatc
300
tccctcagtc tttcccaagc aggcctcat ctacagggca gacctgactg gctagc
356
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```
<210> 2518
<211> 103
<212> PRT
<213> Homo sapiens
```

```

<400> 2518
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Ala Gly Gly Gly Ala Arg Ala Ser Pro Gly Val Arg Thr Cys His Gln
      20                    25                  30
Pro Asn Pro Met Gly Leu Phe Ser Ser Pro Asn Leu Ala Gly Leu Ala
    35                40                45
Glu Ala Thr His Ser Leu Gly Thr Glu Leu Gln Gly Ala Gly Ser Leu
   50            55            60
Ser Arg Lys Arg Pro Val Leu Ser Gly Gln Cys Leu Thr Pro Ala Pro
65          70          75          80
Pro Ser Gln Ala Ser Ser Ser His Leu Pro Gln Ser Phe Pro Ser Arg
     85                90                95
Pro Ser Ser Thr Gly Gln Thr
        100

```

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<210> 2519
<211> 830
<212> DNA
<213> Homo sapiens
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<400> 2519

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 120
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 180
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 240
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 300
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 360
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 420
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 480
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 720
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<210> 2520

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2520

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
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| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Glu | Glu | Val | Gly | Leu | Leu | Cys | Asn | Cys | Leu | Val | Pro | Phe | Lys | Val | Ile |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Leu | Pro | Cys | Trp | Gly | Arg | Cys | Ser | Ser | Phe | Gln | Arg | Arg | Lys | Arg | |
| | | 35 | | | | 40 | | | | 45 | | | | | |
| Gly | Trp | Gly | Val | Ala | Gly | Arg | Gly | Ser | Ser | Arg | Pro | Glu | Ser | Gln | Ser |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Arg | Trp | Arg | Ala | Ala | Ser | Thr | Arg | Phe | Leu | Leu | Val | Gly | Leu | Arg | Gln |
| 65 | | | 70 | | | | | 75 | | | | | | 80 | |
| Gly | Leu | Ala | Pro | Gly | Leu | Ser | Gly | Lys | Arg | Glu | Glu | Glu | Leu | Arg | Leu |
| | | 85 | | | | | 90 | | | | | | 95 | | |
| Arg | Gly | Ala | Val | Leu | Pro | Arg | Arg | Leu | Thr | Gly | | | | | |
| | | 100 | | | | | 105 | | | | | | | | |

<210> 2521

<211> 4291

<212> DNA

<213> Homo sapiens

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1140
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2160
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 3780
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<210> 2522

<211> 952

<212> PRT

<213> Homo sapiens

<400> 2522

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Leu | Phe | Arg | Ala | Glu | Ser | Pro | Thr | Thr | Ala | Ser | Pro | Ala | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Gly | Pro | Ala | Pro | Gly | Cys | Ser | Arg | Arg | Thr | Pro | Pro | Pro | Pro | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Pro | Leu | Ala | Leu | Val | Gly | Val | Thr | Leu | Leu | Leu | Ala | Ala | Pro | Pro |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Cys | Ser | Gly | Ala | Ala | Thr | Pro | Thr | Pro | Ser | Leu | Pro | Pro | Pro | Pro | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Asp | Ser | Asp | Thr | Ser | Thr | Gly | Gly | Cys | Gln | Gly | Ser | Tyr | Arg | Cys |

65 70 75 80
 Gln Pro Gly Val Leu Leu Pro Val Trp Glu Pro Asp Asp Pro Ser Leu
 85 90 95
 Gly Asp Lys Ala Ala Arg Ala Val Val Tyr Phe Val Ala Met Val Tyr
 100 105 110
 Met Phe Leu Gly Val Ser Ile Ile Ala Asp Arg Phe Met Ala Ala Ile
 115 120 125
 Glu Val Ile Thr Ser Lys Glu Lys Glu Ile Thr Ile Thr Lys Ala Asn
 130 135 140
 Gly Glu Thr Ser Val Gly Thr Val Arg Ile Trp Asn Glu Thr Val Ser
 145 150 155 160
 Asn Leu Thr Leu Met Ala Leu Gly Ser Ser Ala Pro Glu Ile Leu Leu
 165 170 175
 Ser Val Ile Glu Val Cys Gly His Asn Phe Gln Ala Gly Glu Leu Gly
 180 185 190
 Pro Gly Thr Ile Val Gly Ser Ala Ala Phe Asn Met Phe Val Val Ile
 195 200 205
 Ala Val Cys Ile Tyr Val Ile Pro Ala Gly Glu Ser Arg Lys Ile Lys
 210 215 220
 His Leu Arg Val Phe Phe Val Thr Ala Ser Trp Ser Ile Phe Ala Tyr
 225 230 235 240
 Val Trp Leu Tyr Leu Ile Leu Ala Val Phe Ser Pro Gly Val Val Gln
 245 250 255
 Val Trp Glu Ala Leu Leu Thr Leu Val Phe Phe Pro Val Cys Val Val
 260 265 270
 Phe Ala Trp Met Ala Asp Lys Arg Leu Leu Phe Tyr Lys Tyr Val Tyr
 275 280 285
 Lys Arg Tyr Arg Thr Asp Pro Arg Ser Gly Ile Ile Ile Gly Ala Glu
 290 295 300
 Gly Asp Pro Pro Lys Ser Ile Glu Leu Asp Gly Thr Phe Val Gly Ala
 305 310 315 320
 Glu Ala Pro Gly Glu Leu Gly Gly Leu Gly Pro Gly Pro Ala Glu Ala
 325 330 335
 Arg Glu Leu Asp Ala Ser Arg Arg Glu Val Ile Gln Ile Leu Lys Asp
 340 345 350
 Leu Lys Gln Lys His Pro Asp Lys Asp Leu Glu Gln Leu Val Gly Ile
 355 360 365
 Ala Asn Tyr Tyr Ala Leu Leu His Gln Gln Lys Ser Arg Ala Phe Tyr
 370 375 380
 Arg Ile Gln Ala Thr Arg Leu Met Thr Gly Ala Gly Asn Val Leu Arg
 385 390 395 400
 Arg His Ala Ala Asp Ala Ser Arg Arg Ala Ala Pro Ala Glu Gly Ala
 405 410 415
 Gly Glu Asp Glu Asp Asp Gly Ala Ser Arg Ile Phe Phe Glu Pro Ser
 420 425 430
 Leu Tyr His Cys Leu Glu Asn Cys Gly Ser Val Leu Leu Ser Val Thr
 435 440 445
 Cys Gln Gly Gly Glu Gly Asn Ser Thr Phe Tyr Val Asp Tyr Arg Thr
 450 455 460
 Glu Asp Gly Ser Ala Lys Ala Gly Ser Asp Tyr Glu Tyr Ser Glu Gly
 465 470 475 480
 Thr Leu Val Phe Lys Pro Gly Glu Thr Gln Lys Glu Leu Arg Ile Gly
 485 490 495
 Ile Ile Asp Asp Asp Ile Phe Glu Glu Asp Glu His Phe Phe Val Arg

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|--|
| 500 | | | | | | | | | | 505 | | | | | 510 | | | | | | |
| Leu | Leu | Asn | Leu | Arg | Val | Gly | Asp | Ala | Gln | Gly | Met | Phe | Glu | Pro | Asp | | | | | | |
| 515 | | | | | | | | | | 520 | | | | | 525 | | | | | | |
| Gly | Gly | Gly | Arg | Pro | Lys | Gly | Arg | Leu | Val | Ala | Pro | Leu | Leu | Ala | Thr | | | | | | |
| 530 | | | | | | | | | | 535 | | | | | 540 | | | | | | |
| Val | Thr | Ile | Leu | Asp | Asp | Asp | His | Ala | Gly | Ile | Phe | Ser | Phe | Gln | Asp | | | | | | |
| 545 | | | | | | | | | | 550 | | | | | 555 | | | | | | |
| Arg | Leu | Leu | His | Val | Ser | Glu | Cys | Met | Gly | Thr | Val | Asp | Val | Arg | Val | | | | | | |
| 565 | | | | | | | | | | 570 | | | | | 575 | | | | | | |
| Val | Arg | Ser | Ser | Gly | Ala | Arg | Gly | Thr | Val | Arg | Leu | Pro | Tyr | Arg | Thr | | | | | | |
| 580 | | | | | | | | | | 585 | | | | | 590 | | | | | | |
| Val | Asp | Gly | Thr | Ala | Arg | Gly | Gly | Gly | Val | His | Tyr | Glu | Asp | Ala | Cys | | | | | | |
| 595 | | | | | | | | | | 600 | | | | | 605 | | | | | | |
| Gly | Glu | Leu | Glu | Phe | Gly | Asp | Asp | Glu | Thr | Met | Lys | Thr | Leu | Gln | Val | | | | | | |
| 610 | | | | | | | | | | 615 | | | | | 620 | | | | | | |
| Lys | Ile | Val | Asp | Asp | Glu | Glu | Tyr | Glu | Lys | Lys | Asp | Asn | Phe | Phe | Ile | | | | | | |
| 625 | | | | | | | | | | 630 | | | | | 635 | | | | | | |
| Glu | Leu | Gly | Gln | Pro | Gln | Trp | Leu | Lys | Arg | Gly | Ile | Ser | Ala | Leu | Leu | | | | | | |
| 645 | | | | | | | | | | 650 | | | | | 655 | | | | | | |
| Leu | Asn | Gln | Gly | Asp | Gly | Asp | Arg | Lys | Leu | Thr | Ala | Glu | Glu | Glu | Glu | | | | | | |
| 660 | | | | | | | | | | 665 | | | | | 670 | | | | | | |
| Ala | Arg | Arg | Ile | Ala | Glu | Met | Gly | Lys | Pro | Val | Leu | Gly | Glu | Asn | Cys | | | | | | |
| 675 | | | | | | | | | | 680 | | | | | 685 | | | | | | |
| Arg | Leu | Glu | Val | Ile | Ile | Glu | Glu | Ser | Tyr | Asp | Phe | Lys | Asn | Thr | Val | | | | | | |
| 690 | | | | | | | | | | 695 | | | | | 700 | | | | | | |
| Asp | Lys | Leu | Ile | Lys | Lys | Thr | Asn | Leu | Ala | Leu | Val | Ile | Gly | Thr | His | | | | | | |
| 705 | | | | | | | | | | 710 | | | | | 715 | | | | | | |
| Ser | Trp | Arg | Glu | Gln | Phe | Leu | Glu | Ala | Ile | Thr | Val | Ser | Ala | Gly | Asp | | | | | | |
| 725 | | | | | | | | | | 730 | | | | | 735 | | | | | | |
| Glu | Glu | Glu | Glu | Glu | Asp | Gly | Ser | Arg | Glu | Glu | Arg | Leu | Pro | Ser | Cys | | | | | | |
| 740 | | | | | | | | | | 745 | | | | | 750 | | | | | | |
| Phe | Asp | Tyr | Val | Met | His | Phe | Leu | Thr | Val | Phe | Trp | Lys | Val | Leu | Phe | | | | | | |
| 755 | | | | | | | | | | 760 | | | | | 765 | | | | | | |
| Ala | Cys | Val | Pro | Pro | Thr | Glu | Tyr | Cys | His | Gly | Trp | Ala | Cys | Phe | Gly | | | | | | |
| 770 | | | | | | | | | | 775 | | | | | 780 | | | | | | |
| Val | Ser | Ile | Leu | Val | Ile | Gly | Leu | Leu | Thr | Ala | Leu | Ile | Gly | Asp | Leu | | | | | | |
| 785 | | | | | | | | | | 790 | | | | | 795 | | | | | | |
| Ala | Ser | His | Phe | Gly | Cys | Thr | Val | Gly | Leu | Lys | Asp | Ser | Val | Asn | Ala | | | | | | |
| 805 | | | | | | | | | | 810 | | | | | 815 | | | | | | |
| Val | Val | Phe | Val | Ala | Leu | Gly | Thr | Ser | Ile | Pro | Asp | Thr | Phe | Ala | Ser | | | | | | |
| 820 | | | | | | | | | | 825 | | | | | 830 | | | | | | |
| Lys | Val | Ala | Ala | Leu | Gln | Asp | Gln | Cys | Ala | Asp | Ala | Ser | Ile | Gly | Asn | | | | | | |
| 835 | | | | | | | | | | 840 | | | | | 845 | | | | | | |
| Val | Thr | Gly | Ser | Asn | Ala | Val | Asn | Val | Phe | Leu | Gly | Leu | Gly | Val | Ala | | | | | | |
| 850 | | | | | | | | | | 855 | | | | | 860 | | | | | | |
| Trp | Ser | Val | Ala | Ala | Val | Tyr | Trp | Ala | Val | Gln | Gly | Arg | Pro | Phe | Glu | | | | | | |
| 865 | | | | | | | | | | 870 | | | | | 875 | | | | | | |
| Val | Arg | Thr | Gly | Thr | Leu | Ala | Phe | Ser | Val | Thr | Leu | Phe | Thr | Val | Phe | | | | | | |
| 885 | | | | | | | | | | 890 | | | | | 895 | | | | | | |
| Ala | Phe | Val | Gly | Ile | Ala | Val | Leu | Leu | Tyr | Arg | Arg | Arg | Pro | His | Ile | | | | | | |
| 900 | | | | | | | | | | 905 | | | | | 910 | | | | | | |
| Gly | Gly | Glu | Leu | Gly | Gly | Pro | Arg | Gly | Pro | Lys | Leu | Ala | Thr | Thr | Ala | | | | | | |
| 915 | | | | | | | | | | 920 | | | | | 925 | | | | | | |
| Leu | Phe | Leu | Gly | Leu | Trp | Leu | Leu | Tyr | Ile | Leu | Phe | Ala | Ser | Leu | Glu | | | | | | |

930 935 940
Ala Tyr Cys His Ile Arg Gly Phe
945 950

<210> 2523
<211> 392
<212> DNA
<213> Homo sapiens

<400> 2523
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120
atggaggctt tggagcatgc gttaacgact gcagggcgaa ttcattggaaa ccagttaatt
180
caccatagcg atcggggcag ccagtacgtg tcaactgaagt attccaccgc gttagcggaa
240
tccggaatcc gtccgagtgt gggaacagtc ggcgattctt atgacaatgc tctagccgaa
300
acagtcaacg gtctctacaa ggcggaactg attcatgccc aagggtccgtg gacgtcggtc
360
ggagaagtcg aattggccac cttgcggnnn nn
392

<210> 2524
<211> 130
<212> PRT
<213> Homo sapiens

<400> 2524
Xaa Ile Thr Tyr Val Arg Thr Leu Ser Gly Phe Ala Tyr Thr Ala Phe
1 5 10 15
Val Val Asp Val Phe Ser Arg Lys Ile Val Gly Val Ala Thr Arg Ser
20 25 30
Thr Met Arg Thr Asp Ala Leu Pro Met Glu Ala Leu Glu His Ala Leu
35 40 45
Thr Thr Ala Gly Arg Ile His Gly Asn Gln Leu Ile His His Ser Asp
50 55 60
Arg Gly Ser Gln Tyr Val Ser Leu Lys Tyr Ser Thr Ala Leu Ala Glu
65 70 75 80
Ser Gly Ile Arg Pro Ser Val Gly Thr Val Gly Asp Ser Tyr Asp Asn
85 90 95
Ala Leu Ala Glu Thr Val Asn Gly Leu Tyr Lys Ala Glu Leu Ile His
100 105 110
Ala Gln Gly Pro Trp Thr Ser Val Gly Glu Val Glu Leu Ala Thr Leu
115 120 125
Arg Xaa
130

<210> 2525
<211> 378
<212> DNA
<213> Homo sapiens

<400> 2525

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 120
 atcgctgcgc tacgcaccaa cgtggtcggc aagatgttgg tcagcggcga gccccgcnaa
 180
 tgattcatat ctccgatatc agcacgacag gggcgtcatt ccgctctgca catcggttg
 240
 gaagtcagcg gtgcgcccgc acgcctgcga ttctgggtga agacgcgcga ctaccattca
 300
 gaactggtgg ccgcaacact cattcgcagc gagaagcccg ccgatttgcc caacacctat
 360
 caatacggcg tggaattc
 378

<210> 2526

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2526

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Val | Cys | Arg | Ile | Pro | Phe | Glu | Tyr | Val | Val | Leu | Ser | Pro | Pro |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Arg | Glu | Ser | Arg | Thr | Ala | Arg | Cys | Ala | Asn | Arg | Cys | Ala | Thr | His | Gln |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Arg | Gly | Arg | Gln | Asp | Val | Gly | Gln | Arg | Arg | Ala | Pro | Xaa | Met | Ile | His |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ile | Ser | Asp | Ile | Ser | Thr | Thr | Gly | Ala | Ser | Phe | Arg | Ser | Ala | His | Arg |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Gly | Ser | Gln | Arg | Cys | Ala | Arg | Thr | Pro | Ala | Ile | Ser | Gly | Glu | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Arg | Leu | Pro | Phe | Arg | Thr | Gly | Gly | Arg | Asn | Thr | His | Ser | Gln | Arg |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Glu | Ala | Arg | Arg | Phe | Ala | Gln | His | Leu | Ser | Ile | Arg | Arg | Gly | Ile | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 2527

<211> 305

<212> DNA

<213> Homo sapiens

<400> 2527

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 120
 cgcctctccc cccagaagc tcccagacag cccaccatct ccacggcctc cgagacctca
 180
 gtgtacgtga cctggattcc ccgtgggaat ggtgggttcc caatccagtc cttccgtgtg
 240
 gagtacaaga agctaaagaa agtgggagac tggattctgg ccaccagcgc catcccccca
 300

cgcgt
305

<210> 2528
<211> 101
<212> PRT
<213> Homo sapiens

<400> 2528
Xaa Val Thr Phe Arg Met Gly Arg Arg Pro Lys Pro Glu Ile Met Ala
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Ser Lys Glu Gln Gln Ile Gln Arg Asp Asp Leu Gly Ala Ser Pro Gln
20 25 30
Ser Ser Ser Gln Pro Asp His Gly Arg Leu Ser Pro Pro Glu Ala Pro
35 40 45
Asp Arg Pro Thr Ile Ser Thr Ala Ser Glu Thr Ser Val Tyr Val Thr
50 55 60
Trp Ile Pro Arg Gly Asn Gly Gly Phe Pro Ile Gln Ser Phe Arg Val
65 70 75 80
Glu Tyr Lys Lys Leu Lys Lys Val Gly Asp Trp Ile Leu Ala Thr Ser
85 90 95
Ala Ile Pro Pro Arg
100

<210> 2529
<211> 387
<212> DNA
<213> Homo sapiens

<400> 2529
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tgtgtctctcc gtgccccccg agtggcctgc tagcccgctc tcccacacag tctccttgat
120
gtgaagtgtc acccggtctg ctgcggcgtg tctccgccgt aacacgtgta taccggctca
180
gccatggcgg cggtgctgga gaaggctcct gcgtatggct ttgccatccg ggacccgggc
240
tttgctctgc aggggtgggc ttctgagcag aggaaggcca gaggtaacca ggtccatgca
300
cgtttggtgc ttccacaat gtcgggcttt tatggatgct tttagtctca gtcacaaaag
360
ccatgagctc cacaggttcc tgaggga
387

<210> 2530
<211> 121
<212> PRT
<213> Homo sapiens

<400> 2530
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1 5 10 15
Trp Lys Asp Thr Asn Val His Gly Pro Gly Tyr Leu Trp Pro Ser Ser

20 25 30
 Ala Gln Lys Pro Thr Pro Ala Glu Gln Ser Pro Gly Pro Gly Trp Gln
 35 40 45
 Ser His Thr Gln Glu Pro Ser Gln Gln Pro Pro Pro Trp Leu Ser Arg
 50 55 60
 Tyr Thr Arg Val Thr Ala Glu Thr Arg Arg Ser Lys Pro Gly Asp Thr
 65 70 75 80
 Ser His Gln Gly Asp Cys Val Gly Glu Arg Ala Ser Arg Pro Leu Gly
 85 90 95
 Gly His Gly Gly His Arg Glu Arg Leu Gln Trp Gln Ser Arg Pro Gly
 100 105 110
 Asp Arg Asp Pro Pro Arg Gly Asp Ala
 115 120

<210> 2531

<211> 396

<212> DNA

<213> Homo sapiens

<400> 2531

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 120
 ctcacagca gccctggaga tgacaaagat agtgctgagg gggaacagac cttcgtcatc
 180
 agttaagat atgctagctt ttctttttct tccagacatt cctgaatcca gagaactttc
 240
 ctgtaatgcg tcaaatacct taggtctcaa ttctttccct agagagacaa ggagcacagt
 300
 tcgttcccaa gggcccccat gcttggcgag ggcgtctctg ctttccaggc agggctcctgc
 360
 tgcctccacc cacgtgcagg gaaaggaagg acgcgt
 396

<210> 2532

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2532

Met Thr Arg Leu Asn Pro Lys Ser Leu Gln Leu Cys Val Ile Ser Ser
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 Ala Ala Leu Glu Met Thr Lys Ile Val Leu Arg Gly Asn Arg Pro Ser
 20 25 30
 Ser Ser Val Lys Asp Met Leu Ala Phe Leu Phe Leu Pro Asp Ile Pro
 35 40 45
 Glu Ser Arg Glu Leu Ser Cys Asn Ala Ser Asn Pro Leu Gly Leu Asn
 50 55 60
 Ser Phe Pro Arg Glu Thr Arg Ser Thr Val Arg Ser Gln Gly Pro Pro
 65 70 75 80
 Cys Leu Ala Arg Ala Ser Leu Leu Ser Arg Gln Gly Pro Ala Ala Ser
 85 90 95
 Thr His Val Gln Gly Lys Glu Gly Arg

100

105

<210> 2533
 <211> 495
 <212> DNA
 <213> Homo sapiens

<400> 2533
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 gctgtggcan ccccatgga cgtgatcaag tcgagactgc aggcagacgg gcagggccag
 120
 aggcgctacc ggggtctcct gactgtatg gtgaccagcg ttcgagagga gggaccccg
 180
 gtccttttca aggggctggt actcaattgc tgccgcgcct tccctgtcaa catggtggtc
 240
 ttcgtgcgct atgaggcagt gctgaggctc gcccggggctc tgctcacata gccggtcccc
 300
 acgcccagcg gccacccac cagcagctgc tggaggctcgt agtggctgga ggaggcaagg
 360
 ggtagtggtg ctgggttcgg gacccacag ggccattgcc caggagaatg aggagcctcc
 420
 ctgcagtgtt gtcggccgag gcctgagctc gccctgccca gctactgacc tcaggctcag
 480
 gggcccgcca gccat
 495

<210> 2534
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 2534
 Xaa Arg Pro Asp Val Pro Gly Val Leu Val Ala Gly Gly Cys Ala Gly
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 Val Leu Ala Trp Ala Val Ala Xaa Pro Met Asp Val Ile Lys Ser Arg
 20 25 30
 Leu Gln Ala Asp Gly Gln Gly Gln Arg Arg Tyr Arg Gly Leu Leu His
 35 40 45
 Cys Met Val Thr Ser Val Arg Glu Glu Gly Pro Arg Val Leu Phe Lys
 50 55 60
 Gly Leu Val Leu Asn Cys Cys Arg Ala Phe Pro Val Asn Met Val Val
 65 70 75 80
 Phe Val Ala Tyr Glu Ala Val Leu Arg Leu Ala Arg Gly Leu Leu Thr
 85 90 95

<210> 2535
 <211> 1904
 <212> DNA
 <213> Homo sapiens

<400> 2535
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cgtcggtggt aggctgctac catgagggtg aatcagaaca ccttgctgct ggggaagaag
120
gtggtccttg taccctacac ctcggagcat gtgcccagca ggtaccacga gtggatgaaa
180
tcagaggagc tgcagcgttt gacagcctcg gagccgctga ccctggagca ggagtatgcc
240
atgcagtgca gctggcagga agatgcagac aagtgtacct tcattgtgct ggatgccgag
300
aagtggcagg cccagccagg cgccaccgaa gagagctgca tgggtgggaga cgtgaacctc
360
ttcctcacag atctagaaga ccccaccttg ggggagatcg aggtcatgat tgcagagccc
420
agctgcaggg gtaagggcct tggcactgag gccgttctcg cgatgctgtc ttacggagtg
480
accacgctag gtctgaccaa gtttgaggct aaaattgggc aaggaaatga accaagcatc
540
cggatgttcc agaaacttca ctttgagcag gtggctacga gcagtgtttt tcaggagggtg
600
accctcagac tgacagtgag tgagtccgag catcagtggc ttctggagca gaccagccac
660
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720
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780
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840
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900
gccagttccc ttctcccctc ccggccaaac ccagaccag actctaggaa gctggaatgg
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1020
tggaacatgg atgggagtgg acaggccttt ctcccttagag gccagagggtg ctgccctggc
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1140
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1200
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1260
gagtgtggcc tggccctca acctagtgtc cgctcctc tctcctggag ccagtcttga
1320
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1380
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1440
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1560
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1620
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1680

caagaaaggc cgggcatgct ttctaaacac agccacagga ggcttgtagg gcattctcca
 1740
 ggtggggaaa cagtcttaga taagtaagggt gacttgcccta aggcctccca gcacccttga
 1800
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 1860
 aaaacaaaca ttataaaacg aaaaaaaaaa aaaaaaaaag tact
 1904

<210> 2536

<211> 207

<212> PRT

<213> Homo sapiens

<400> 2536

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Leu | Asn | Gln | Asn | Thr | Leu | Leu | Leu | Gly | Lys | Lys | Val | Val | Leu |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Val | Pro | Tyr | Thr | Ser | Glu | His | Val | Pro | Ser | Arg | Tyr | His | Glu | Trp | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Ser | Glu | Glu | Leu | Gln | Arg | Leu | Thr | Ala | Ser | Glu | Pro | Leu | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Gln | Glu | Tyr | Ala | Met | Gln | Cys | Ser | Trp | Gln | Glu | Asp | Ala | Asp | Lys |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Cys | Thr | Phe | Ile | Val | Leu | Asp | Ala | Glu | Lys | Trp | Gln | Ala | Gln | Pro | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Thr | Glu | Glu | Ser | Cys | Met | Val | Gly | Asp | Val | Asn | Leu | Phe | Leu | Thr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Asp | Leu | Glu | Asp | Pro | Thr | Leu | Gly | Glu | Ile | Glu | Val | Met | Ile | Ala | Glu |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Pro | Ser | Cys | Arg | Gly | Lys | Gly | Leu | Gly | Thr | Glu | Ala | Val | Leu | Ala | Met |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Leu | Ser | Tyr | Gly | Val | Thr | Thr | Leu | Gly | Leu | Thr | Lys | Phe | Glu | Ala | Lys |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ile | Gly | Gln | Gly | Asn | Glu | Pro | Ser | Ile | Arg | Met | Phe | Gln | Lys | Leu | His |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Phe | Glu | Gln | Val | Ala | Thr | Ser | Ser | Val | Phe | Gln | Glu | Val | Thr | Leu | Arg |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Thr | Val | Ser | Glu | Ser | Glu | His | Gln | Trp | Leu | Leu | Glu | Gln | Thr | Ser |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| His | Val | Glu | Glu | Lys | Pro | Tyr | Arg | Asp | Gly | Ser | Ala | Glu | Pro | Cys | |
| | | 195 | | | | | 200 | | | | | 205 | | | |

<210> 2537

<211> 509

<212> DNA

<213> Homo sapiens

<400> 2537

acgcgttctc gtaaggacaa gcttgacgcc gaggtgcatg ccggtgaagg caccctccggg
 60
 gatgtcatcg tgctgcgggtt ttccggagcc atggcgaagc gtccctgcctc agttatcctt
 120
 ccgctgctac tgctcggaact ccccgctcatt gcgtgggtggc ccttctccgg ccctgacaac
 180

ctcgctcgg accccatcgg agcccttgcg gaccgcgcga tcaccgactc ggcagctgac
 240
 aaagatccgt gcaaagccct catacgccgt gcggctcacc taaccgaggg tgactccgac
 300
 ctgtgttggg ctgcaccac cagctggaga gccctagctg cagcagcttt ggatcaacat
 360
 ccagcgaccg tcaagttcgc tcgggtagag tcagccgccg gtaatgcgcc ggcgatgctg
 420
 ctggcagcct ggctaggatt gcgtctcggc gtcccggctg agcgggtgac aaccgacgcg
 480
 cccggcatct ccgcgatcgt catgtcgac
 509

<210> 2538

<211> 169

<212> PRT

<213> Homo sapiens

<400> 2538

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Ser | Arg | Lys | Asp | Lys | Leu | Asp | Ala | Glu | Val | His | Ala | Gly | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Thr | Pro | Gly | Asp | Val | Ile | Val | Leu | Arg | Phe | Ser | Gly | Ala | Met | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Lys | Arg | Pro | Ala | Ser | Val | Ile | Leu | Pro | Leu | Leu | Ser | Asp | Ser | Pro | |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Ile | Ala | Trp | Trp | Pro | Phe | Ser | Gly | Pro | Asp | Asn | Leu | Ala | Ser | Asp |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Pro | Ile | Gly | Ala | Leu | Ala | Asp | Arg | Arg | Ile | Thr | Asp | Ser | Ala | Ala | Asp |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Lys | Asp | Pro | Cys | Lys | Ala | Leu | Ile | Arg | Arg | Ala | Ala | His | Leu | Thr | Glu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Asp | Ser | Asp | Leu | Cys | Trp | Ala | Arg | Thr | Thr | Ser | Trp | Arg | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Ala | Ala | Leu | Asp | Gln | His | Pro | Ala | Thr | Val | Lys | Phe | Ala | Arg |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Val | Glu | Ser | Ala | Ala | Gly | Asn | Ala | Pro | Ala | Met | Leu | Leu | Ala | Ala | Trp |
| | 130 | | | | | 135 | | | | 140 | | | | | |
| Leu | Gly | Leu | Arg | Leu | Gly | Val | Pro | Val | Glu | Arg | Val | Thr | Thr | Asp | Ala |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Pro | Gly | Ile | Ser | Ala | Ile | Val | Met | Ser | | | | | | | |
| | | | | | 165 | | | | | | | | | | |

<210> 2539

<211> 453

<212> DNA

<213> Homo sapiens

<400> 2539

aagcttctac tgccgcgagc acgtcgtcca ccgtcgaggt catggttcta gtttgccgcg
 60
 tcgcggcatg acccgaggat agtgacgtgg gacaatggct acgtgcggtt tctcaacgag
 120
 cagccgaact acgacctgac gtatgacgac gtcttcatgg caccaaaccg ttcctcggtg
 180

ggggtcccga tgaacgtcga cctcacgtca acagacgggc taggcactcc tctgcccctc
 240
 gtagtggcca atatgaccgc aatttcgga cgctgcatgg cagagaccat cgccaggcgc
 300
 ggaggcattg ctgttctgcc ccaagatata cgggaggatt tcgtcgcccg gtccattcgg
 360
 cgcgtcaaag atgcgcatac tcgattcgac accccagtca cegtcaaccc gacaacgact
 420
 gtcggtgagg ccatgaactt gctcaacaag cgc
 453

<210> 2540

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2540

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ala | Ala | Ser | Arg | His | Asp | Pro | Arg | Ile | Val | Thr | Trp | Asp | Asn | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Val | Arg | Phe | Leu | Asn | Glu | Gln | Pro | Asn | Tyr | Asp | Leu | Thr | Tyr | Asp |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Asp | Val | Phe | Met | Ala | Pro | Asn | Arg | Ser | Ser | Val | Gly | Ser | Arg | Met | Asn |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Val | Asp | Leu | Thr | Ser | Thr | Asp | Gly | Leu | Gly | Thr | Pro | Leu | Pro | Leu | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Ala | Asn | Met | Thr | Ala | Ile | Ser | Gly | Arg | Arg | Met | Ala | Glu | Thr | Ile |
| 65 | | | | 70 | | | | 75 | | | | | 80 | | |
| Ala | Arg | Arg | Gly | Gly | Ile | Ala | Val | Leu | Pro | Gln | Asp | Ile | Pro | Ala | Asp |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Phe | Val | Ala | Arg | Ser | Ile | Arg | Arg | Val | Lys | Asp | Ala | His | Thr | Arg | Phe |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Asp | Thr | Pro | Val | Thr | Val | Asn | Pro | Thr | Thr | Thr | Val | Gly | Glu | Ala | Met |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Asn | Leu | Leu | Asn | Lys | Arg | | | | | | | | | | |
| | | 130 | | | | | | | | | | | | | |

<210> 2541

<211> 564

<212> DNA

<213> Homo sapiens

<400> 2541

accggtctcc cacggagttc tgtttctcga ggtactgcac tgtatacaac tctaaatgca
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 ccttgcattg aaccattgc agggcacacg cagtctacat gtatcccagg ttttatgctc
 120
 acagagcctg caatactccg tgtctggaat acgttatttg ctgcacacct cccagaggaa
 180
 catgtaacgt ctgtgtaaca tgctatcctg cacacatctg aaagaatctg tgtacacaac
 240
 actattatgc tgtgcacaca tttcctcata ttctgtgtag agagcacctc attttgtact
 300
 caaatattcg gcttcataa caagttacat tgctcacatc ttaaaatatt cattacacgt
 360

gaaaccaccg catggtaccg acatccttct ggaatgtccc gcacagaggc tgatatatgt
 420
 gcacagttct cactgttctg cgtgcccagc ccctcacact ggacgcccac ctcacactct
 480
 tctgccaagg gagactttgg ttctcccctt ccctgtgctg gctgtgcggg ccacagtcct
 540
 ctgcacgcca gcagcatgac gcgt
 564

<210> 2542

<211> 106

<212> PRT

<213> Homo sapiens

<400> 2542

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Leu | Cys | Thr | His | Phe | Leu | Ile | Phe | Cys | Val | Glu | Ser | Thr | Ser | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Thr | Gln | Ile | Phe | Gly | Phe | His | Asn | Lys | Leu | His | Cys | Ser | His | Leu |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Lys | Ile | Phe | Ile | Thr | Arg | Glu | Thr | Thr | Ala | Trp | Tyr | Arg | His | Pro | Ser |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Gly | Met | Ser | Arg | Thr | Glu | Ala | Asp | Ile | Cys | Ala | Gln | Phe | Ser | Leu | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Val | Pro | Ser | Pro | Ser | His | Trp | Thr | Pro | Thr | Ser | His | Ser | Ser | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Gly | Asp | Phe | Gly | Ser | Pro | Leu | Pro | Cys | Ala | Gly | Cys | Ala | Gly | His |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Pro | Leu | His | Ala | Ser | Ser | Met | Thr | Arg | | | | | | |
| | | 100 | | | | | | 105 | | | | | | | |

<210> 2543

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2543

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 60
 aacgtgccca tgctttctgc accacactgg atgactgaag gggaaggaac gagcgtctta
 120
 ccgctcctga tgagattttt gtttttgcct aacaaagaaa tgtgtatgaa tgcacgtctg
 180
 ttgcagggg caggaggag gagggtcctt ggaatagctg ccgacaacag ctggaactcc
 240
 tgtctgggtc cccagctgg gctagagagg gcagtgatca tctgtccact ggacaggaag
 300
 gtttgcaaag ggctgtttgc ttactgggtc ccaattttta gccttctgaa gccctgtcc
 360
 aatggggccc agcaggcagc agtgctg
 387

<210> 2544

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2544

```

Met Glu Trp Gly Gly Arg Ala Arg Val Gly Thr Cys Trp Asn Val Pro
 1           5           10           15
Met Leu Ser Ala Pro His Trp Met Thr Glu Gly Glu Gly Thr Ser Val
          20           25           30
Leu Pro Leu Leu Met Arg Phe Leu Phe Leu Pro Asn Lys Glu Met Cys
          35           40           45
Met Asn Ala Arg Leu Phe Ala Gly Ala Gly Arg Arg Arg Val Leu Gly
          50           55           60
Ile Ala Ala Asp Asn Ser Trp Asn Ser Cys Leu Gly Pro Pro Ala Gly
65           70           75           80
Leu Glu Arg Ala Val Ile Ile Cys Pro Leu Asp Arg Lys Val Cys Lys
          85           90           95
Gly Leu Phe Ala Tyr Trp Val Pro Ile Phe Ser Leu Leu Lys Pro Leu
          100          105          110
Ser Asn Gly Ala Gln Gln Ala Ala Val Leu
          115          120

```

<210> 2545

<211> 336

<212> DNA

<213> Homo sapiens

<400> 2545

```

gcgattattt tcgtgctgcc cggacttatc atgggtcggct ggtgggtcagg tttcccgtac
60
tggaccaccc tcgtatatctg tctagtcggc ggcatacctcg gcgttatgta ctcgattccg
120
ctgcgtcggg ccctcgtgac aggtcgggat cttccctacc cggagggcgt cgcaggagct
180
gaggtgctca aagtaggcga ttccgctggt gccgccgagg ctaacaagggt gggctctgcga
240
gtcatcatcg tcggttctgt ggtctctgca gcgtacgccc tgttgtcgga tcttaagctt
300
gtgaagtcgg cgctgaccaa gcctttcaag acgggc
336

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<210> 2546

<211> 112

<212> PRT

<213> Homo sapiens

<400> 2546

```

Ala Ile Ile Phe Val Leu Pro Gly Leu Ile Met Val Gly Trp Trp Ser
 1           5           10           15
Gly Phe Pro Tyr Trp Thr Thr Leu Ala Ile Cys Leu Val Gly Gly Ile
          20           25           30
Leu Gly Val Met Tyr Ser Ile Pro Leu Arg Arg Ala Leu Val Thr Gly
          35           40           45
Ser Asp Leu Pro Tyr Pro Glu Gly Val Ala Gly Ala Glu Val Leu Lys
          50           55           60
Val Gly Asp Ser Ala Gly Ala Ala Glu Ala Asn Lys Val Gly Leu Arg

```


| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Val | Ile | Ile | Val | Gly | Ser | Val | Val | Ser | Ala | Ala | Tyr | Ala | Leu | Leu | Ser |
| | | 85 | | | | 90 | | | | | | | 95 | | |
| Asp | Leu | Lys | Leu | Val | Lys | Ser | Ala | Leu | Thr | Lys | Pro | Phe | Lys | Thr | Gly |
| | | 100 | | | | | | 105 | | | | | 110 | | |

<210> 2547
 <211> 556
 <212> DNA
 <213> Homo sapiens

<400> 2547
 acgcgtgcac acacacacac gcaggcgtac acgctcacaa gtgcacacac acatatgagt
 60
 ttccacacaca tctcaccata tcactttctc tttacttttt aaagacaggg cacttgccct
 120
 tatggccaat aatattatgc ccaagctaca acattccgag tcaatcacaa aggttataaa
 180
 cttcatttga actgaagacc acctgtaagc acgcagctca aatgtttctca cctagaaatt
 240
 caagttgtgt ttggaaagtg gacttaacgg tcaaagaaaa aggctggcc aacttcagag
 300
 aggacacccc agccctgcta cgttgcgtgt cattatgtgg tgctgtgcta tccatagaga
 360
 aagaggagat gaaaaagatt ctacaaagag agatcaaact gcaagaaagc acaaagattt
 420
 catcaccaca atatgaaggc ctcccttggt taaatgactt ttttaggtcc caataagaaa
 480
 taccatctat tctatctgga attattttat tagcttcaaa ttttattcta agattcatat
 540
 tatcagatca tctaga
 556

<210> 2548
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 2548
 Met Asn Leu Arg Ile Lys Phe Glu Ala Asn Lys Ile Ile Pro Asp Arg
 1 5 10 15
 Ile Asp Gly Ile Ser Tyr Trp Asp Leu Lys Lys Ser Phe Ile Pro Arg
 20 25 30
 Arg Pro Ser Tyr Cys Gly Asp Glu Ile Phe Val Leu Ser Cys Ser Leu
 35 40 45
 Ile Ser Leu Cys Arg Ile Phe Phe Ile Ser Ser Phe Ser Met Asp Ser
 50 55 60
 Thr Ala Pro His Asn Asp Thr Gln Arg Ser Arg Ala Gly Cys Pro Ser
 65 70 75 80
 Leu Lys Leu Ala Arg Pro Phe Ser Leu Thr Val Lys Ser Thr Phe Gln
 85 90 95
 Thr Gln Leu Glu Phe Leu Gly Glu Asn Ile
 100 105

<210> 2549
 <211> 435
 <212> DNA
 <213> Homo sapiens

<400> 2549
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 60
 atcgatgata atggtgtcgg catgtctcgt gaagaagcca ttacaaactt aggtacgatt
 120
 gctaaatcgg gcacctcttc tttcttagag caattgagtg gcgatcagaa aaaagacagc
 180
 caacttattg gtcaattcgg tgtaggcttt tactctgctt tcatcgttgc tgataaagta
 240
 acagtagaaa cacgtcgcgc aggtgcgacg gaaaatgaag cggttcgcgtg ggtatctgat
 300
 gggtctgggtg aatttactat tgagacgacg gataaagcga ctcgtgggtac acgcattact
 360
 ttgcatctga aagcagatga aaaagatttc gcagacaact tccgtctacg ttcattagta
 420
 acaaaaatatt ctgat
 435

<210> 2550
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 2550
 Xaa Gln Pro Leu Ser Asp Arg Val Arg Ile Glu Phe Asp Lys Glu Ala
 1 5 10 15
 Asn Thr Val Val Ile Asp Asp Asn Gly Val Gly Met Ser Arg Glu Glu
 20 25 30
 Ala Ile Thr Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Ser Ser Phe
 35 40 45
 Leu Glu Gln Leu Ser Gly Asp Gln Lys Lys Asp Ser Gln Leu Ile Gly
 50 55 60
 Gln Phe Gly Val Gly Phe Tyr Ser Ala Phe Ile Val Ala Asp Lys Val
 65 70 75 80
 Thr Val Glu Thr Arg Arg Ala Gly Ala Thr Glu Asn Glu Ala Val Arg
 85 90 95
 Trp Val Ser Asp Gly Ser Gly Glu Phe Thr Ile Glu Thr Ile Asp Lys
 100 105 110
 Ala Thr Arg Gly Thr Arg Ile Thr Leu His Leu Lys Ala Asp Glu Lys
 115 120 125
 Asp Phe Ala Asp Asn Phe Arg Leu Arg Ser Leu Val Thr Lys Tyr Ser
 130 135 140
 Asp
 145

<210> 2551
 <211> 403
 <212> DNA
 <213> Homo sapiens

<400> 2551
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 60
 ggactccact tctggggacg cctgggtcgt tcgcccacca ggcttaggct acgtccatg
 120
 ctccccagc aatctctgtc tacacctcct gcggcgctt gccctcctcc gaccccttc
 180
 cagccannaa gtccccccac cccttcagag aagcagcctc aaattccaga agtggaggct
 240
 ccagctccc cgcgaggtag cagccccaca gtcttctggg agccattgtg gccagggacg
 300
 gcctctggac tgccaggctg ggttggggac caggggaacat cggtctactc aggtgtgagg
 360
 gggcaggtct ggctgcccc aaagttggtt ccattctgga can
 403

<210> 2552
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 2552
 Xaa Pro Ala Ser Leu Thr Ser Val Ser Pro Pro Arg Gly Arg Leu Ser
 1 5 10 15
 Thr Leu Asn Arg Gly Leu His Phe Trp Gly Arg Leu Val Arg Ser Pro
 20 25 30
 Thr Arg Pro Arg Leu Arg Ser Met Leu Pro Gln Gln Ser Leu Ser Thr
 35 40 45
 Pro Pro Ala Ala Pro Cys Pro Pro Pro Thr Pro Phe Gln Pro Xaa Ser
 50 55 60
 Pro Pro Thr Pro Ser Glu Lys Gln Pro Gln Ile Pro Glu Val Glu Ala
 65 70 75 80
 Pro Ala Ser Pro Arg Gly Thr Ser Pro Thr Val Phe Trp Glu Pro Leu
 85 90 95
 Trp Pro Gly Thr Ala Ser Gly Leu Pro Gly Trp Val Gly Asp Gln Gly
 100 105 110
 Thr Ser Val Tyr Ser Gly Val Arg Gly Gln Val Trp Pro Ala Pro Lys
 115 120 125
 Leu Ala Pro Ser Trp Thr
 130

<210> 2553
 <211> 380
 <212> DNA
 <213> Homo sapiens

<400> 2553
 actagtgtcc ctataagaaa aggaaaggac caagacacag gaaagatgaa gcagagattg
 60
 gagagataca gcatgggcca aggagcactg ggagccagca gcagctggaa gaggcaggag
 120
 gcattctccc tagaccgcac aggatgctac tgggtgagcc tgctgtcctg gaaaaggcgt
 180

gaagtctgcc tgagtgggca ggggcttctg cgcagcaccc agcaaggcca aggtggaagg
 240
 gaccctctctg gccctgtcc tggtccacc ctcagctgct ggcaggtggg tcaccaggcc
 300
 tctgcccaaa gaaactcctg caggcagctc tggaccccct gtcttacaca cttctcact
 360
 gagcctgccca gcatcccagn
 380

<210> 2554
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 2554
 Met Lys Gln Arg Leu Glu Arg Tyr Ser Met Gly Gln Gly Ala Leu Gly
 1 5 10 15
 Ala Ser Ser Ser Trp Lys Arg Gln Glu Ala Ser Ser Leu Asp Arg Thr
 20 25 30
 Gly Cys Tyr Trp Val Ser Leu Leu Ser Trp Lys Arg Arg Glu Val Cys
 35 40 45
 Leu Ser Gly Gln Gly Leu Leu Arg Ser Thr Gln Gln Gly Gln Gly Gly
 50 55 60
 Arg Asp Pro Pro Gly Pro Cys Pro Gly Ser Thr Leu Ser Cys Trp Gln
 65 70 75 80
 Val Gly His Gln Ala Ser Ala Gln Arg Asn Ser Cys Arg Gln Leu Trp
 85 90 95
 Thr Pro Cys Leu Thr His Leu Leu Thr Glu Pro Ala Ser Ile Pro
 100 105 110

<210> 2555
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 2555
 ntccggatgg aaaagtaaag accagcaata gccataacg ccattaacac ataccatat
 60
 atgttggttaa tgctgcccg tagttcggtg gcattcttca tgggcaatag tttaatggga
 120
 gataacgcga ataatggtag tgctgttcta gtgctcacag acctgggtcac ccaaatagaa
 180
 ggatttatat cctcccatat cctcattttt gtgctcgttg gcctcggtcat tgtctttacc
 240
 gttgccactc gaggtgtaca gtccggcctc ttcgggcaca tgtggcacct catgctcgat
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 tcacggaagc aaaagggcac ctccctctcc agctctcaag cattcacagt gggctctgat
 360
 cacgcggn
 368

<210> 2556
 <211> 102
 <212> PRT

<213> Homo sapiens

<400> 2556

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Met Leu Leu Met Leu Pro Gly Ser Ser Val Ala Phe Phe Met Gly Asn
 1             5             10             15
Ser Leu Met Gly Asp Asn Ala Asn Asn Gly Ser Val Val Leu Val Leu
      20             25             30
Thr Asp Leu Val Thr Gln Ile Glu Gly Phe Ile Ser Ser His Ile Leu
      35             40             45
Ile Phe Val Leu Val Gly Leu Gly Ile Val Phe Thr Val Ala Thr Arg
      50             55             60
Gly Val Gln Phe Arg Leu Phe Gly His Met Trp His Leu Met Leu Asp
65             70             75             80
Ser Arg Lys Gln Lys Gly Thr Ser Leu Ser Ser Ser Gln Ala Phe Thr
      85             90             95
Val Gly Leu Asp His Ala
      100

```

<210> 2557

<211> 408

<212> DNA

<213> Homo sapiens

<400> 2557

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120
aaattcgaag accaagctgt taaagctgag atgttgatga ctggtattaa ggtcgttgat
180
cttcttgcac cttacgcaaa ggggtggcaag atcggctctc tcggtggtgc gggcgtaggt
240
aaaacagttt tgattcaaga gttgattcgt aacatcgcta ctgagcacgg tggatactct
300
gtattcgcag gtgtcggcga gcgtactcgc gaaggtaacg atctttgggt tgagatgaaa
360
gaatcaggcg ttatcgcaaa gaccgcactt gtattcggtc agatgaat
408

```

<210> 2558

<211> 136

<212> PRT

<213> Homo sapiens

<400> 2558

```

Ile Thr Thr Pro Val Gly Glu Ala Val Leu Gly Arg Ile Leu Asn Val
 1             5             10             15
Ile Gly Glu Pro Ile Asp Glu Met Gly Pro Val Asn Ala Lys Glu Lys
      20             25             30
Trp Glu Ile His Arg Pro Ala Pro Lys Phe Glu Asp Gln Ala Val Lys
      35             40             45
Ala Glu Met Leu Met Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro
      50             55             60
Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly

```

65 70 75 80
 Lys Thr Val Leu Ile Gln Glu Leu Ile Arg Asn Ile Ala Thr Glu His
 85 90 95
 Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly
 100 105 110
 Asn Asp Leu Trp Val Glu Met Lys Glu Ser Gly Val Ile Ala Lys Thr
 115 120 125
 Ala Leu Val Phe Gly Gln Met Asn
 130 135

<210> 2559

<211> 389

<212> DNA

<213> Homo sapiens

<400> 2559

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 gcttttctga aagatcgact gaatgcaata caggaagagc attctaagga cctgaagctg
 120
 ttgcatctcg aagttatgaa tttgcgccag caactgagag ctgtaaaaga ggaagaagac
 180
 aaggcacaag atgaggtgca aaggttgact gccactctga agattgcctc gcagacaaaag
 240
 aagaatgcag ccattattga agaggaactg aagaccacaa aacgtaaaat gaaccttaaa
 300
 attcaagagc ttctagagat gacctcattt ccaagttggt tgaagaaaat aagaacctgc
 360
 aggatatctt tcaacaggaa catgaagaa
 389

<210> 2560

<211> 129

<212> PRT

<213> Homo sapiens

<400> 2560

Ser Leu Lys Met Asn Ile Phe Arg Leu Gln Thr Glu Lys Asp Leu Asn
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 Pro Gln Lys Thr Ala Phe Leu Lys Asp Arg Leu Asn Ala Ile Gln Glu
 20 25 30
 Glu His Ser Lys Asp Leu Lys Leu Leu His Leu Glu Val Met Asn Leu
 35 40 45
 Arg Gln Gln Leu Arg Ala Val Lys Glu Glu Glu Asp Lys Ala Gln Asp
 50 55 60
 Glu Val Gln Arg Leu Thr Ala Thr Leu Lys Ile Ala Ser Gln Thr Lys
 65 70 75 80
 Lys Asn Ala Ala Ile Ile Glu Glu Glu Leu Lys Thr Thr Lys Arg Lys
 85 90 95
 Met Asn Leu Lys Ile Gln Glu Leu Leu Glu Met Thr Ser Phe Pro Ser
 100 105 110
 Trp Leu Lys Lys Ile Arg Thr Cys Arg Ile Ser Phe Asn Arg Asn Met
 115 120 125
 Lys

<210> 2561
 <211> 429
 <212> DNA
 <213> Homo sapiens

<400> 2561
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 atgtggagcc atttgaacag gctcctcttc tggagcatat tttcttctgt cacttgtaga
 120
 aaagctgtat tggattgtga ggcaatgaaa acaaatgaat tcccttctcc atgtttggac
 180
 tcaaagacta aggtgggttat gaagggtcaa aatgtatcta tgttttggtc ccataagaac
 240
 aaatcactgc agatcaccta ttcattgttt cgacgtaaga cacacctggg aaccaggat
 300
 ggaaaagggtg aacctgcgat ttttaaccta agcatcacag aagcccatga atcaggcccc
 360
 taaaaatgca aagcccaagt taccagctgt taaaaataca gtcgtgactt cagcttcacg
 420
 attgtcgac
 429

<210> 2562
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 2562
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 1 5 10 15
 Ser Thr Gly Arg Met Trp Ser His Leu Asn Arg Leu Leu Phe Trp Ser
 20 25 30
 Ile Phe Ser Ser Val Thr Cys Arg Lys Ala Val Leu Asp Cys Glu Ala
 35 40 45
 Met Lys Thr Asn Glu Phe Pro Ser Pro Cys Leu Asp Ser Lys Thr Lys
 50 55 60
 Val Val Met Lys Gly Gln Asn Val Ser Met Phe Cys Ser His Lys Asn
 65 70 75 80
 Lys Ser Leu Gln Ile Thr Tyr Ser Leu Phe Arg Arg Lys Thr His Leu
 85 90 95
 Gly Thr Gln Asp Gly Lys Gly Glu Pro Ala Ile Phe Asn Leu Ser Ile
 100 105 110
 Thr Glu Ala His Glu Ser Gly Pro Tyr Lys Cys Lys Ala Gln Val Thr
 115 120 125
 Ser Cys Ser Lys Tyr Ser Arg Asp Phe Ser Phe Thr Ile Val Asp
 130 135 140

<210> 2563
 <211> 267
 <212> DNA
 <213> Homo sapiens

<400> 2563

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 accccggtca ccatccagaa catgacctcc tcttatgtca ccatcacatc ccatgtcctt
 120
 aaggccttta ccctttggga acaggcagag gccctcacia ggaagaacia agaattcttt
 180
 gctcagctca gcacaaaagt gcgcgtgttg gccctcaaca gcagcctggt ggacctggtg
 240
 cactacacia ggcagggcct ccagcgg
 267

<210> 2564

<211> 89

<212> PRT

<213> Homo sapiens

<400> 2564

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Gln | Thr | Ser | Ala | Gly | Ser | Ser | Met | Gly | Ala | Val | Gly | Ala | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Thr | Val | Ser | Thr | Pro | Val | Thr | Ile | Gln | Asn | Met | Thr | Ser | Ser | Tyr |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Val | Thr | Ile | Thr | Ser | His | Val | Leu | Lys | Ala | Phe | Thr | Leu | Trp | Glu | Gln |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Ala | Glu | Ala | Leu | Thr | Arg | Lys | Asn | Lys | Glu | Phe | Phe | Ala | Gln | Leu | Ser |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Thr | Lys | Val | Arg | Val | Leu | Ala | Leu | Asn | Ser | Ser | Leu | Val | Asp | Leu | Val |
| 65 | | | 70 | | | | | | 75 | | | | | 80 | |
| His | Tyr | Thr | Arg | Gln | Gly | Leu | Gln | Arg | | | | | | | |
| | | | | | 85 | | | | | | | | | | |

<210> 2565

<211> 333

<212> DNA

<213> Homo sapiens

<400> 2565

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 120
 gggccggtga aatcccagcg actgatccgc agcgacaacc tgcaggccct caccgaggcc
 180
 gacatcgccc agttgcagca actcgggtgc tccgatgtgg tcgatctgag ttccacctat
 240
 gaggtggcca gcgagggccc ggggccgctg accgggcgtg gggtgaccat ccacccccat
 300
 tccttcctgc ccgaccagca cgccaatgtg cac
 333

<210> 2566

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2566

```

Leu Arg Thr Ala Pro Arg Val Leu Gly Gly Val Ser Thr Ala Arg Lys
 1           5           10           15
Leu Ser His Val Trp Phe Glu Phe Asp Ser Leu Val Asn Ala Arg Asp
          20           25           30
Val Gly Gly Ile Pro Thr Pro Asp Gly Pro Val Lys Ser Gln Arg Leu
          35           40           45
Ile Arg Ser Asp Asn Leu Gln Ala Leu Thr Glu Ala Asp Ile Ala Gln
          50           55           60
Leu Gln Gln Leu Gly Val Ser Asp Val Val Asp Leu Arg Ser Thr Tyr
65           70           75           80
Glu Val Ala Ser Glu Gly Pro Gly Pro Leu Thr Gly Arg Gly Val Thr
          85           90           95
Ile His Pro His Ser Phe Leu Pro Asp Gln His Ala Asn Val His
          100          105          110

```

<210> 2567

<211> 396

<212> DNA

<213> Homo sapiens

<400> 2567

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120
tctgtacgag gtttttagtgg agaagaaacc ttaagaggtg actcgggcta ttatgtacaa
180
aatgaatggg cattaccatt tagaaaacaa caaattactc catatgtagg gatagatatt
240
ggacatgtat gggggccatc tacagaaact caattaggta ataccttaat tgggtggtgta
300
gttggtgtac gtggtatggt tggtgacgat gtaaactatg atgtatcact aggaacacca
360
attaagaaac cagaaggttt tgatacagat acgcgt
396

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<210> 2568

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2568

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Xaa Ile Gln Thr Gly Val Arg Met Gly His Lys Gln Gly Thr Tyr Thr
 1           5           10           15
Met Arg Phe Arg Ser Gln Phe Thr Asp Gln Arg Leu Phe Gly Thr Asp
          20           25           30
Gln Phe Ser Ile Gly Gly Arg Tyr Ser Val Arg Gly Phe Ser Gly Glu
          35           40           45
Glu Thr Leu Arg Gly Asp Ser Gly Tyr Tyr Val Gln Asn Glu Trp Ala
          50           55           60
Leu Pro Phe Arg Lys Gln Gln Ile Thr Pro Tyr Val Gly Ile Asp Ile

```

65 70 75 80
 Gly His Val Trp Gly Pro Ser Thr Glu Thr Gln Leu Gly Asn Thr Leu
 85 90 95
 Ile Gly Gly Val Val Gly Val Arg Gly Met Val Gly Asp Asp Val Asn
 100 105 110
 Tyr Asp Val Ser Leu Gly Thr Pro Ile Lys Lys Pro Glu Gly Phe Asp
 115 120 125
 Thr Asp Thr Arg
 130

<210> 2569

<211> 330

<212> DNA

<213> Homo sapiens

<400> 2569

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 tacctcgtcg ccgatagagt tgctgtgacc accaagcaca acgatgacga gcagtacgtg
 120
 tgggagtgccc aagcgggagg gtcgttcact gttactcgtg acacgtcagg ggagcagctt
 180
 ggcaggggca ctaagatcac actgttcctc aaggacgatc agctggagta ccttgaggag
 240
 cgtcgcctca aggatctggt caagaagcac tctgagttca tcagctaccc catctccctg
 300
 tggactgaaa agacaacaga gaaggaaatt
 330

<210> 2570

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2570

Leu Ala Ala Gly Ala Asp Val Ser Met Ile Gly Gln Phe Gly Val Gly
 1 5 10 15
 Phe Tyr Ser Ala Tyr Leu Val Ala Asp Arg Val Val Val Thr Thr Lys
 20 25 30
 His Asn Asp Asp Glu Gln Tyr Val Trp Glu Ser Gln Ala Gly Gly Ser
 35 40 45
 Phe Thr Val Thr Arg Asp Thr Ser Gly Glu Gln Leu Gly Arg Gly Thr
 50 55 60
 Lys Ile Thr Leu Phe Leu Lys Asp Asp Gln Leu Glu Tyr Leu Glu Glu
 65 70 75 80
 Arg Arg Leu Lys Asp Leu Val Lys Lys His Ser Glu Phe Ile Ser Tyr
 85 90 95
 Pro Ile Ser Leu Trp Thr Glu Lys Thr Thr Glu Lys Glu Ile
 100 105 110

<210> 2571

<211> 335

<212> DNA

<213> Homo sapiens

<400> 2571

gaattcgcca atgttttctc cggtatgggc tccacagtaa cccttatcgg cgcctcccct
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 gtgctcccta aacatctcga taatgaacta tctgagctct ttactgagat cgctcgggag
 120
 aaatgggatg tccgttttagg gcagggaacg acagctatcg accaggtgga gaagcagcgt
 180
 gaagatgggt cttcctactt cgaaaccacc attacatttg aagacggcag cactgttacc
 240
 ggtgacgcat tcctagttgc taccggacgt acccctaaca ccgaccgcct tggcctcgac
 300
 aatggttccg gtgtgaaggt tgaaagggga cgcgt
 335

<210> 2572

<211> 111

<212> PRT

<213> Homo sapiens

<400> 2572

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Ala | Asn | Val | Phe | Ser | Gly | Met | Gly | Ser | Thr | Val | Thr | Leu | Ile |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Gly | Arg | Ser | Pro | Val | Leu | Leu | Lys | His | Leu | Asp | Asn | Glu | Leu | Ser | Glu |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Leu | Phe | Thr | Glu | Ile | Ala | Arg | Glu | Lys | Trp | Asp | Val | Arg | Leu | Gly | Gln |
| | 35 | | | | | | 40 | | | | 45 | | | | |
| Gly | Thr | Thr | Ala | Ile | Asp | Gln | Val | Glu | Lys | Gln | Arg | Glu | Asp | Gly | Ser |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ser | Tyr | Phe | Glu | Thr | Thr | Ile | Thr | Phe | Glu | Asp | Gly | Ser | Thr | Val | Thr |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Gly | Asp | Ala | Phe | Leu | Val | Ala | Thr | Gly | Arg | Thr | Pro | Asn | Thr | Asp | Arg |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Gly | Leu | Asp | Asn | Gly | Ser | Gly | Val | Lys | Val | Glu | Arg | Gly | Arg | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 2573

<211> 460

<212> DNA

<213> Homo sapiens

<400> 2573

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 120
 cgagacgacg ttgatacgtc caccggcgcg gtccgtgatc cacgccgtcg tcgccgttgc
 180
 cgccactggc acgatgaggg ccatcaccga gaagagaacg gccaccactc gcagaccacc
 240
 tcgtcccaga agagcgagga cgaaggcgat gacggcgatg accagagccg gtacagccaa
 300
 cgatcccacc agaacggagg agatgaaggt gagggcattg tgtgagggga ggatcgcggc
 360

cactgaccac gccagtaccg gcaggggtcag gatcagcccc acgagaccgg aagtgatgcg

420

tagccaggaa tgacgggagg ttttcgtgtc agccacgcgt

460

<210> 2574

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2574

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Thr | Val | Asp | Leu | Gly | Arg | Leu | Val | Arg | Ala | Gly | Ser | Ile | Pro |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Asp | Arg | Phe | Val | Arg | Val | Val | Gly | His | Arg | Arg | His | Arg | Arg | Cys | Arg |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Asp | Asp | Val | Asp | Thr | Ser | Thr | Gly | Ala | Val | Arg | Asp | Pro | Arg | Arg | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Arg | Cys | Arg | His | Trp | His | Asp | Glu | Gly | His | His | Arg | Glu | Glu | Asn |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gly | His | His | Ser | Gln | Thr | Thr | Ser | Ser | Gln | Lys | Ser | Glu | Asp | Glu | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Asp | Gly | Asp | Asp | Gln | Ser | Arg | Tyr | Ser | Gln | Arg | Ser | His | Gln | Asn |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gly | Gly | Asp | Glu | Gly | Glu | Gly | Ile | Val | | | | | | | |
| | | 100 | | | | | 105 | | | | | | | | |

<210> 2575

<211> 3954

<212> DNA

<213> Homo sapiens

<400> 2575

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120
atcagggaaa gaggacaggg agaccagaag agggccagct gggacgaggg ggcggacgcc
180
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240
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360
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420
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480
gagtctctga gggccactgt ggagcgcccc gccatggccc cccgcaccct ctggagctgc
540
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660

ccccggccag ccagccgcc caggaactgg tgtgcctacg tggtagacccg gacagtggagc
720
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780
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1140
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2280

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2880
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<210> 2576

<211> 1016

<212> PRT

<213> Homo sapiens

<400> 2576

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Pro | Arg | Thr | Leu | Trp | Ser | Cys | Tyr | Leu | Cys | Cys | Leu | Leu | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ala | Ala | Gly | Ala | Ala | Ser | Tyr | Pro | Pro | Arg | Gly | Phe | Ser | Leu | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Gly | Ser | Ser | Gly | Ala | Leu | Ser | Pro | Gly | Gly | Pro | Gln | Ala | Gln | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Pro | Arg | Pro | Ala | Ser | Arg | His | Arg | Asn | Trp | Cys | Ala | Tyr | Val | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Arg | Thr | Val | Ser | Cys | Val | Leu | Glu | Asp | Gly | Val | Glu | Thr | Tyr | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Lys | Tyr | Gln | Pro | Cys | Ala | Trp | Gly | Gln | Pro | Gln | Cys | Pro | Gln | Ser | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Met | Tyr | Arg | Arg | Phe | Leu | Arg | Pro | Arg | Tyr | Arg | Val | Ala | Tyr | Lys | Thr |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Val | Thr | Asp | Met | Glu | Trp | Arg | Cys | Cys | Gln | Gly | Tyr | Gly | Gly | Asp | Asp |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Cys | Ala | Glu | Ser | Pro | Ala | Pro | Ala | Leu | Gly | Pro | Ala | Ser | Ser | Thr | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Pro | Leu | Ala | Arg | Pro | Ala | Arg | Pro | Asn | Leu | Ser | Gly | Ser | Ser | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Ser | Pro | Leu | Ser | Gly | Leu | Gly | Gly | Glu | Gly | Pro | Gly | Glu | Ser | Glu |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Lys | Val | Gln | Gln | Leu | Glu | Glu | Gln | Val | Gln | Ser | Leu | Thr | Lys | Glu | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gln | Gly | Leu | Arg | Gly | Val | Leu | Gln | Gly | Leu | Ser | Gly | Arg | Leu | Ala | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Val | Gln | Arg | Ala | Val | Glu | Thr | Ala | Phe | Asn | Gly | Arg | Gln | Gln | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Asp | Ala | Ala | Ala | Arg | Pro | Gly | Val | His | Glu | Thr | Leu | Asn | Glu | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gln | His | Gln | Leu | Gln | Leu | Leu | Asp | Thr | Arg | Val | Ser | Thr | His | Asp | Gln |
| | | | | 245 | | | | 250 | | | | | | 255 | |
| Glu | Leu | Gly | His | Leu | Asn | Asn | His | His | Gly | Gly | Ser | Ser | Ser | Ser | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Ser | Arg | Ala | Pro | Ala | Pro | Ala | Ser | Ala | Pro | Pro | Gly | Pro | Ser | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Glu | Leu | Leu | Arg | Gln | Leu | Glu | Gln | Arg | Leu | Gln | Glu | Ser | Cys | Ser | Val |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Cys | Leu | Ala | Gly | Leu | Asp | Gly | Phe | Arg | Arg | Gln | Gln | Gln | Glu | Asp | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Glu | Arg | Leu | Arg | Ala | Met | Glu | Lys | Leu | Leu | Ala | Ser | Val | Glu | Glu | Arg |
| | | | | 325 | | | | 330 | | | | | | 335 | |
| Gln | Arg | His | Leu | Ala | Gly | Leu | Ala | Val | Gly | Arg | Arg | Pro | Pro | Gln | Glu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Cys | Cys | Ser | Pro | Glu | Leu | Gly | Arg | Arg | Leu | Ala | Glu | Leu | Glu | Arg | Arg |

355 360 365
 Leu Asp Val Val Ala Gly Ser Val Thr Val Leu Ser Gly Arg Arg Gly
 370 375 380
 Thr Glu Leu Gly Gly Ala Ala Gly Gln Gly Gly His Pro Pro Gly Tyr
 385 390 395 400
 Thr Ser Leu Ala Ser Arg Leu Ser Arg Leu Glu Asp Arg Phe Asn Ser
 405 410 415
 Thr Leu Gly Pro Ser Glu Glu Gln Glu Glu Ser Trp Pro Gly Ala Pro
 420 425 430
 Gly Gly Leu Ser His Trp Leu Pro Ala Ala Arg Gly Arg Leu Glu Gln
 435 440 445
 Leu Gly Gly Leu Leu Ala Asn Val Ser Gly Glu Leu Gly Gly Arg Leu
 450 455 460
 Asp Leu Leu Glu Glu Gln Val Ala Gly Ala Met Gln Ala Cys Gly Gln
 465 470 475 480
 Leu Cys Ser Gly Ala Pro Gly Glu Gln Asp Ser Gln Val Ser Glu Ile
 485 490 495
 Leu Ser Ala Leu Glu Arg Arg Val Leu Asp Ser Glu Gly Gln Leu Arg
 500 505 510
 Leu Val Gly Ser Gly Leu His Thr Val Glu Ala Ala Gly Glu Ala Arg
 515 520 525
 Gln Ala Thr Leu Glu Gly Leu Gln Glu Val Val Gly Arg Leu Gln Asp
 530 535 540
 Arg Val Asp Ala Gln Asp Glu Thr Ala Ala Glu Phe Thr Leu Arg Leu
 545 550 555 560
 Asn Leu Thr Ala Ala Arg Leu Gly Gln Leu Glu Gly Leu Leu Gln Ala
 565 570 575
 His Gly Asp Glu Gly Cys Gly Ala Cys Gly Gly Val Gln Glu Glu Leu
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 Gly Arg Leu Arg Asp Gly Val Glu Arg Cys Ser Cys Pro Leu Leu Pro
 595 600 605
 Pro Arg Gly Pro Gly Ala Gly Pro Gly Val Gly Gly Pro Ser Arg Gly
 610 615 620
 Pro Leu Asp Gly Phe Ser Val Phe Gly Gly Ser Ser Gly Ser Ala Leu
 625 630 635 640
 Gln Ala Leu Gln Gly Glu Leu Ser Glu Val Ile Leu Ser Phe Ser Ser
 645 650 655
 Leu Asn Asp Ser Leu Asn Glu Leu Gln Thr Thr Val Glu Gly Gln Gly
 660 665 670
 Ala Asp Leu Ala Asp Leu Gly Ala Thr Lys Asp Arg Ile Ile Ser Glu
 675 680 685
 Ile Asn Arg Leu Gln Gln Glu Ala Thr Glu His Ala Thr Glu Ser Glu
 690 695 700
 Glu Arg Phe Arg Gly Leu Glu Glu Gly Gln Ala Gln Ala Gly Gln Cys
 705 710 715 720
 Pro Ser Leu Glu Gly Arg Leu Gly Arg Leu Glu Gly Val Cys Glu Arg
 725 730 735
 Leu Asp Thr Val Ala Gly Gly Leu Gln Gly Leu Arg Glu Gly Leu Ser
 740 745 750
 Arg His Val Ala Gly Leu Trp Ala Gly Leu Arg Glu Thr Asn Thr Thr
 755 760 765
 Ser Gln Met Gln Ala Ala Leu Glu Lys Leu Val Gly Gly Gln Ala
 770 775 780
 Gly Leu Gly Arg Arg Leu Gly Ala Leu Asn Ser Ser Leu Gln Leu Leu

| | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|--|--|--|------|--|--|--|--|--|-----|--|--|--|------|-----|--|--|--|--|
| 785 | 790 | | | | | | | | | | 795 | | | | | 800 | | | | |
| Glu Asp Arg Leu His | Gln Leu Ser Leu Lys Asp Leu Thr Gly Pro Ala | | | | | | | | | | | | | | | | | | | |
| 805 | | | | | 810 | | | | | | | | | | 815 | | | | | |
| Gly Glu Ala Gly Pro | Pro Gly Pro Pro Gly Leu Gln Gly Pro Pro Gly | | | | | | | | | | | | | | | | | | | |
| 820 | | | | | 825 | | | | | | | | | | 830 | | | | | |
| Pro Ala Gly Pro Pro | Gly Ser Pro Gly Lys Asp Gly Gln Glu Gly Pro | | | | | | | | | | | | | | | | | | | |
| 835 | | | | | 840 | | | | | | | | | | 845 | | | | | |
| Ile Gly Pro Pro Gly | Pro Gln Gly Glu Gln Gly Val Glu Gly Ala Pro | | | | | | | | | | | | | | | | | | | |
| 850 | | | | | 855 | | | | | | | | | | 860 | | | | | |
| Ala Ala Pro Val Pro | Gln Val Ala Phe Ser Ala Ala Leu Ser Leu Pro | | | | | | | | | | | | | | | | | | | |
| 865 | | | | | 870 | | | | | | | | | | 875 | | | | | |
| Arg Ser Glu Pro Gly | Thr Val Pro Phe Asp Arg Val Leu Leu Asn Asp | | | | | | | | | | | | | | | | | | | |
| 885 | | | | | 890 | | | | | | | | | | 895 | | | | | |
| Gly Gly Tyr Tyr Asp | Pro Glu Thr Gly Val Phe Thr Ala Pro Leu Ala | | | | | | | | | | | | | | | | | | | |
| 900 | | | | | 905 | | | | | | | | | | 910 | | | | | |
| Gly Arg Tyr Leu Leu | Ser Ala Val Leu Thr Gly His Arg His Glu Lys | | | | | | | | | | | | | | | | | | | |
| 915 | | | | | 920 | | | | | | | | | | 925 | | | | | |
| Val Glu Ala Val Leu | Ser Arg Ser Asn Gln Gly Val Ala Arg Val Asp | | | | | | | | | | | | | | | | | | | |
| 930 | | | | | 935 | | | | | | | | | | 940 | | | | | |
| Ser Gly Gly Tyr Glu | Pro Glu Gly Leu Glu Asn Lys Pro Val Ala Glu | | | | | | | | | | | | | | | | | | | |
| 945 | | | | | 950 | | | | | | | | | | 955 | | | | | |
| Ser Gln Pro Ser Pro | Gly Thr Leu Gly Val Phe Ser Leu Ile Leu Pro | | | | | | | | | | | | | | | | | | | |
| 965 | | | | | 970 | | | | | | | | | | 975 | | | | | |
| Leu Gln Ala Gly Asp | Thr Val Cys Val Asp Leu Val Met Gly Gln Leu | | | | | | | | | | | | | | | | | | | |
| 980 | | | | | 985 | | | | | | | | | | 990 | | | | | |
| Ala His Ser Glu Glu | Pro Leu Thr Ile Phe Ser Gly Ala Leu Leu Tyr | | | | | | | | | | | | | | | | | | | |
| 995 | | | | | 1000 | | | | | | | | | | 1005 | | | | | |
| Gly Asp Pro Glu Leu | Glu His Ala | | | | | | | | | | | | | | | | | | | |
| 1010 | | | | | 1015 | | | | | | | | | | | | | | | |

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<210> 2577
<211> 343
<212> DNA
<213> Homo sapiens
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120
tgctgagcaa attacgaggg tcaacaggag cagggcagac gcttctccca cctgctggcc
180
agtgttcctt cggctaccgt gcactcagcc ccacagtgac ccctgagtgg ataccggccc
240
tgccctgcctt gggctctcaa tggggggctcg gggcctcaca gggccagcac gagccacttg
300
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343
```

```
<210> 2578
<211> 100
<212> PRT
<213> Homo sapiens
```

<400> 2578

```

Met Ala Ser Trp Ala Ser Arg Arg Ser Trp Gly Trp Gly Gly Gly Val
 1           5           10           15
Val His Ser Ser Pro Ala Ala Ala Asp Leu Glu Pro Ser Val Ala Lys
      20           25           30
Cys Leu Leu Ser Lys Leu Arg Gly Ser Thr Gly Ala Gly Gln Thr Leu
      35           40           45
Leu Pro Pro Ala Gly Gln Cys Ser Leu Gly Tyr Arg Ala Leu Ser Pro
      50           55           60
Thr Val Thr Pro Glu Trp Ile Pro Ala Leu Pro Ala Leu Gly Ser Gln
65           70           75           80
Trp Gly Leu Gly Ala Ser Gln Gly Gln His Glu Pro Leu Ala Arg Val
      85           90           95
Ser Asn Arg Pro
      100

```

<210> 2579

<211> 420

<212> DNA

<213> Homo sapiens

<400> 2579

```

ntcatgatct tcagaagctg tattaatttg gccgcattta tcatcatagt tttttcctat
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120
gttaaaaaag agatgatcct tgccaaacgt tttttcttta tagtattttac tgatgcatta
180
tgctggatac ccatttttgt agtgaaaattt ctttcactgc ttcaggtaga aataccaggt
240
accataacct cttgggtagt gattttttatt ctgcccatta acagtgcctt gaacccaatt
300
ctctatactc tgaccacaag accatttaaa gaaatgattc atcgggttttg gtataactac
360
agacaaagaa aatctatgga cagcaaaggt cagaaaacag aggctggagt gtgctcgcgga
420

```

<210> 2580

<211> 140

<212> PRT

<213> Homo sapiens

<400> 2580

```

Xaa Met Ile Phe Arg Ser Cys Ile Asn Leu Ala Ala Phe Ile Ile Ile
 1           5           10           15
Val Phe Ser Tyr Gly Ser Met Phe Tyr Ser Val His Gln Ser Ala Ile
      20           25           30
Thr Ala Thr Glu Ile Arg Asn Gln Val Lys Lys Glu Met Ile Leu Ala
      35           40           45
Lys Arg Phe Phe Phe Ile Val Phe Thr Asp Ala Leu Cys Trp Ile Pro
      50           55           60
Ile Phe Val Val Lys Phe Leu Ser Leu Leu Gln Val Glu Ile Pro Gly
65           70           75           80
Thr Ile Thr Ser Trp Val Val Ile Phe Ile Leu Pro Ile Asn Ser Ala

```

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Leu | Asn | Pro | Ile | Leu | Tyr | Thr | Leu | Thr | Thr | Arg | Pro | Phe | Lys | Glu | Met | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Ile | His | Arg | Phe | Trp | Tyr | Asn | Tyr | Arg | Gln | Arg | Lys | Ser | Met | Asp | Ser | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Lys | Gly | Gln | Lys | Thr | Glu | Ala | Gly | Val | Cys | Ser | Arg | | | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |

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<210> 2581
<211> 459
<212> DNA
<213> Homo sapiens
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120
cagtttgat accaggccca ttccctcgac aagattgaga tcattggacg cattctgcag
180
gccaacgacg tcgaaaaggt cattatcttc tgccgcacca agcgtgcatg ccagcggctt
240
tctgacgacc tcgacgaccg cggtttcaaa acccgcgcca tccacgggtga tctcacgcag
300
gtcgcgcgtg aaaaggcgct caagaaattc cgtcatggcg aggcgaccat cctgggtggcg
360
accgatgtcg ctgcccgtgg cattgacgtc accgggggtgt cccacgtcat caaccatgaa
420
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459
```

```
<210> 2582
<211> 153
<212> PRT
<213> Homo sapiens
```

```

<400> 2582
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 1           5           10           15
Ser Gln Leu Arg Arg Pro Val His Val Arg Ala Glu Gly Ala Asp Thr
          20           25           30
Gln Thr Thr Val Pro Asp Thr Gln Gln Phe Val Tyr Gln Ala His Ser
          35           40           45
Leu Asp Lys Ile Glu Ile Ile Gly Arg Ile Leu Gln Ala Asn Asp Val
          50           55           60
Glu Lys Val Ile Ile Phe Cys Arg Thr Lys Arg Ala Cys Gln Arg Leu
65           70           75           80
Ser Asp Asp Leu Asp Asp Arg Gly Phe Lys Thr Arg Ala Ile His Gly
          85           90           95
Asp Leu Thr Gln Val Ala Arg Glu Lys Ala Leu Lys Lys Phe Arg His
          100          105          110
Gly Glu Ala Thr Ile Leu Val Ala Thr Asp Val Ala Ala Arg Gly Ile
          115          120          125
Asp Val Thr Gly Val Ser His Val Ile Asn His Glu Cys Pro Glu Asp

```

130
Glu Lys Thr Tyr Val His Arg Ile Gly
145
150

140

<210> 2583
<211> 7098
<212> DNA
<213> Homo sapiens

<400> 2583
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tatccatact cactgaagac aaaaagccac cttttctgcg tcttggtggc atgcatgtgt
120
ctcatcatcc tttcaaaact gtggtggaac aggggttttct tccctgtctg tgtattttga
180
gccagcacag ttacccaaaat tgaacttgtc tttcgcttgt gaacggttgt ggtcattgtg
240
agggcggtgc atgaggaggc tgtagccaag gacgaggtgt gtgcggctgt tgcctggacg
300
tttgtccaat ccacgttgac atttgagggg tcacagcgtg tgaaaatgaa ctgagaggag
360
aattggtgaa ttcctatcca gtgggcattt tcaaaccctg gtcgacggcg gaagaatatc
420
aggtcctgag atcaccacc cggcgcgga acagtgcaga gtggccacat ctggtggaag
480
aagaaaaaaa tgtagtatt gaattcaatc aagtgtttgc atctttcaag ctatcaacaa
540
aattccatca agaaagggtc cagttggtct cacagacgta tggatatccg aggagccacc
600
taaagatgga gaaatcaagg catagagaga ttaagtgact ttgccacagt cacaagctgg
660
agaggaccag gagtagagct tagagcgagc ccctgactct gggcctgcgt cctgccagga
720
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780
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840
gagctgttca gctgtccac ccctggctgt gacggcagtg gtcatgtcag tggcaaatat
900
gcaagacaca gaagtgtata tggttgtccc ttggcgaaaa aaagaaaaaac acaagataaa
960
cagccccagg aacctgctcc taaacgaaag ccatttgccg tgaaagcaga cagctcctca
1020
gtgatgagt gtgacgacag tgatgggact gaggacatgg atgagaagga ggaggatgag
1080
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1260
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1320

gatgataaca atagtgcga atatgacaat tacgatgaac tggtaggcaa gtcattgtta
1380
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1680
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<210> 2584

<211> 1186

<212> PRT

<213> Homo sapiens

<400> 2584

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| Met | Glu | Val | Asp | Thr | Glu | Glu | Lys | Arg | His | Arg | Thr | Arg | Ser | Lys | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Arg | Val | Pro | Val | Glu | Pro | Ala | Ile | Gln | Glu | Leu | Phe | Ser | Cys | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Pro | Gly | Cys | Asp | Gly | Ser | Gly | His | Val | Ser | Gly | Lys | Tyr | Ala | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Arg | Ser | Val | Tyr | Gly | Cys | Pro | Leu | Ala | Lys | Lys | Arg | Lys | Thr | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Lys | Gln | Pro | Gln | Glu | Pro | Ala | Pro | Lys | Arg | Lys | Pro | Phe | Ala | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Lys | Ala | Asp | Ser | Ser | Ser | Val | Asp | Glu | Cys | Asp | Asp | Ser | Asp | Gly | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Asp | Met | Asp | Glu | Lys | Glu | Glu | Asp | Glu | Gly | Glu | Glu | Tyr | Ser | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Asn | Asp | Glu | Pro | Gly | Asp | Glu | Asp | Glu | Glu | Asp | Glu | Glu | Gly | Asp |

[illegible]

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 Ala Ala Ala Glu Lys Leu Ala Lys Ala Gln Glu Lys His Gln Ser Cys
 580 585 590
 Asp Val Ser Lys Ser Ser Gln Ala Ser Asp Arg Val Leu Arg Pro Met
 595 600 605
 Cys Phe Val Lys Gln Leu Glu Ile Pro Gln Tyr Gly Tyr Arg Asn Asn
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 Val Pro Thr Thr Thr Pro Arg Ser Asn Leu Ala Lys Glu Leu Glu Lys
 625 630 635 640
 Tyr Ser Lys Thr Ser Phe Glu Tyr Asn Ser Tyr Asp Asn His Thr Tyr
 645 650 655
 Gly Lys Arg Ala Ile Ala Pro Lys Val Gln Thr Arg Asp Ile Ser Pro
 660 665 670
 Lys Gly Tyr Asp Asp Ala Lys Arg Tyr Cys Lys Asp Pro Ser Pro Ser
 675 680 685
 Ser Ser Ser Thr Ser Ser Tyr Ala Pro Ser Ser Ser Ser Asn Leu Ser
 690 695 700
 Cys Gly Gly Gly Ser Ser Ala Ser Ser Thr Cys Ser Lys Ser Ser Phe
 705 710 715 720
 Asp Tyr Thr His Asp Met Glu Ala Ala His Met Ala Ala Thr Ala Ile
 725 730 735
 Leu Asn Leu Ser Thr Arg Cys Arg Glu Met Pro Gln Asn Leu Ser Thr
 740 745 750
 Lys Pro Gln Asp Leu Cys Ala Thr Arg Asn Pro Asp Met Glu Val Asp
 755 760 765
 Glu Asn Gly Thr Leu Asp Leu Ser Met Asn Lys Gln Arg Pro Arg Asp
 770 775 780
 Ser Cys Cys Pro Ile Leu Thr Pro Leu Glu Pro Met Ser Pro Gln Gln
 785 790 795 800
 Gln Ala Val Met Asn Asn Arg Cys Phe Gln Leu Gly Glu Gly Asp Cys
 805 810 815
 Trp Asp Leu Pro Val Asp Tyr Thr Lys Met Lys Pro Arg Arg Ile Asp
 820 825 830
 Glu Asp Glu Ser Lys Asp Ile Thr Pro Glu Asp Leu Asp Pro Phe Gln
 835 840 845
 Glu Ala Leu Glu Glu Arg Arg Tyr Pro Gly Glu Val Thr Ile Pro Ser
 850 855 860
 Pro Lys Pro Lys Tyr Pro Gln Cys Lys Glu Ser Lys Lys Asp Leu Ile
 865 870 875 880
 Thr Leu Ser Gly Cys Pro Leu Ala Asp Lys Ser Ile Arg Ser Met Leu
 885 890 895
 Ala Thr Ser Ser Gln Glu Leu Lys Cys Pro Thr Pro Gly Cys Asp Gly
 900 905 910
 Ser Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser Leu Ser Gly
 915 920 925
 Cys Pro Arg Ala Lys Lys Ser Gly Ile Arg Ile Ala Gln Ser Lys Glu
 930 935 940
 Asp Lys Glu Asp Gln Glu Pro Ile Arg Cys Pro Val Pro Gly Cys Asp
 945 950 955 960
 Gly Gln Gly His Ile Thr Gly Lys Tyr Ala Ser His Arg Ser Ala Ser
 965 970 975
 Gly Cys Pro Leu Ala Ala Lys Arg Gln Lys Asp Gly Tyr Leu Asn Gly

980 985 990
 Ser Gln Phe Ser Trp Lys Ser Val Lys Thr Glu Gly Met Ser Cys Pro
 995 1000 1005
 Thr Pro Gly Cys Asp Gly Ser Gly His Val Ser Gly Ser Phe Leu Thr
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 1025 1030 1035 1040
 Ala Lys Leu Ser Gly Glu Gln Met Leu Thr Ile Lys Gln Arg Ala Ser
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 1060 1065 1070
 Lys Glu Leu Asn Glu Ser Asn Ser Gln Met Glu Ala Asp Met Ile Lys
 1075 1080 1085
 Leu Arg Thr Gln Ile Thr Thr Met Glu Ser Asn Leu Lys Thr Ile Glu
 1090 1095 1100
 Glu Glu Asn Lys Val Ile Glu Gln Gln Asn Glu Ser Leu Leu His Glu
 1105 1110 1115 1120
 Leu Ala Asn Leu Ser Gln Ser Leu Ile His Ser Leu Ala Asn Ile Gln
 1125 1130 1135
 Leu Pro His Met Asp Pro Ile Asn Glu Gln Asn Phe Asp Ala Tyr Val
 1140 1145 1150
 Thr Thr Leu Thr Glu Met Tyr Thr Asn Gln Asp Arg Tyr Gln Ser Pro
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<210> 2585

<211> 542

<212> DNA

<213> Homo sapiens

<400> 2585

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<210> 2586
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 <212> PRT
 <213> Homo sapiens

<400> 2586
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 35 40 45
 Pro Gln Arg Ala Lys Val Cys Glu His Phe Leu Ser Pro Leu Asn Gly
 50 55 60
 Leu Ser His Val Ile Leu Thr Arg Leu Leu Cys Phe Ile Thr Ser Val
 65 70 75 80
 Ser Gly Ala Ser His Pro Arg Glu Glu Trp Trp Gly Cys Arg Leu Thr
 85 90 95
 Leu Gly His Leu Ala Ala Ala Ser Val Leu Met Thr Thr Leu Leu Pro
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 Gln Ala Leu Leu Leu Asn Val Leu Ala Leu
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<210> 2587
 <211> 435
 <212> DNA
 <213> Homo sapiens

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 gatgccggct acccgccgct ggtaaccccg tcgtcccaga tcgtgggaac ccaggcgggtg
 180
 ttcaacgtct tgatgggcaa tgggtcgtaac aagaatctca ctgccgagtt tgccgacctc
 240
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 300
 aagaagcaga ccggcaagga gccgatcgac tgccgtcccg ccgacttgct cgagcctgag
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<210> 2588
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 2588
 Xaa Asn Ile His Ala Ala Ile Pro Gly Gly Met Leu Ser Asn Met Glu

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Ser Gln Leu Glu Ala Gln Gly Ala Gly Asp Arg Met Asp Glu Val Met
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Lys Glu Val Pro Arg Val Arg Lys Asp Ala Gly Tyr Pro Pro Leu Val
      35           40           45
Thr Pro Ser Ser Gln Ile Val Gly Thr Gln Ala Val Phe Asn Val Leu
      50           55           60
Met Gly Asn Gly Ser Tyr Lys Asn Leu Thr Ala Glu Phe Ala Asp Leu
      65           70           75           80
Met Leu Gly Tyr Tyr Gly Lys Pro Ile Gly Glu Leu Asn Pro Glu Ile
      85           90           95
Val Glu Met Ala Lys Lys Gln Thr Gly Lys Glu Pro Ile Asp Cys Arg
      100           105           110
Pro Ala Asp Leu Leu Glu Pro Glu Trp Asp Gln Leu Val Glu Gln Ala
      115           120           125
Lys Ser Leu Glu Gly Phe Asp Gly Ser Asp Glu Asp Val Leu Thr Asn
      130           135           140
Ala
145

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<210> 2589

<211> 366

<212> DNA

<213> Homo sapiens

<400> 2589

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ggcgatccgg ttgagcagat cagagcgctg accagggggc gcggcgctcga tttcgcgatc
120
gaggtcgctg gcatcgctga ggtcatggag caggcctact gggcgggcgcg acgcggcggc
180
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240
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360
acgcgt
366

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<210> 2590

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2590

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Pro Ala Lys Lys Asp Met Ala Met Val Phe Gly Ala Thr His Tyr Val
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Asp Pro Thr Ala Gly Asp Pro Val Glu Gln Ile Arg Ala Leu Thr Arg
      20           25           30
Gly Arg Gly Val Asp Phe Ala Ile Glu Val Val Gly Ile Val Glu Val
      35           40           45
Met Glu Gln Ala Tyr Trp Ala Ala Arg Arg Gly Gly Thr Ile Val Tyr

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```

      50              55              60
Val Gly Ala Leu Gly Ile Asp Ala Lys Leu Val Leu Pro Ala Asn Asp
65              70              75              80
Leu His Gly Gly Ala Lys Thr Ile Ile Gly Cys Ala Asn Gly Leu Gly
      85              90              95
Ala Val Arg Thr Asp Tyr Ala Lys Met Ile Ser Leu Val Glu Thr Gly
      100             105             110
Arg Leu Asp Leu Gly Gly Met Ile Thr Arg
      115             120

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<210> 2591
 <211> 341
 <212> DNA
 <213> Homo sapiens

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<400> 2591
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agcagcccac gagttgtcca gcaccaggcc aggggtcagt cagcaatgag gacagctcct
120
tcctgtccca gggcaggccc tgggcagggc aatgctgggg acacggtggg gagtaggcca
180
cagcttctgt gggggagttc ctatggcagg aggatcatgc ccagcagcgt ggaagagcaa
240
ggggtgaccc tgcactcgag gctcctggga agacggggag ggttgaggtt acatgaggga
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gaggggtcag ttggtgcatt cacagaacag cagggtggcc a
341

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<210> 2592
 <211> 109
 <212> PRT
 <213> Homo sapiens

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<400> 2592
Met Thr Ser Pro Tyr His Gln Gly His Thr Cys Val Ile Leu Gly Leu
1              5              10              15
Ser Ser Pro Arg Val Val Gln His Gln Ala Arg Gly Gln Ser Ala Met
      20              25              30
Arg Thr Ala Pro Ser Cys Ser Arg Ala Gly Pro Gly Gln Gly Asn Ala
      35              40              45
Gly Asp Thr Val Gly Ser Arg Pro Gln Leu Leu Trp Gly Ser Ser Tyr
      50              55              60
Gly Arg Arg Ile Met Pro Ser Ser Val Glu Glu Gln Gly Val Thr Leu
65              70              75              80
His Ser Arg Leu Leu Gly Arg Arg Gly Gly Leu Arg Leu His Glu Gly
      85              90              95
Glu Gly Ser Val Gly Ala Phe Thr Glu Gln Gln Gly Gly
      100             105

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<210> 2593
 <211> 501
 <212> DNA
 <213> Homo sapiens

<400> 2593

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 120
 ttggcgcgcc aagcggatga agcgggggat tatatgactt atattgtgtc ttcggacctc
 180
 gatatgctgc aaatcgtaga tgaaaacacc aagatgtatc gaattctgcg gggattttcg
 240
 gatctcgagg agatggatac tccagcgatt gaagaaaaat atggaatctt gaagtcgcaa
 300
 tttttggacc tgaaggcgct gaagggggat aattcggata atattccagg cgtaccaggg
 360
 attggtgaga aaaccgcagt gaaactcttg aatgagtatg gtagcttgga ggggatttat
 420
 aatcatatca aggaaatttc gggggcgaca cagaagaaat tgattgctgg acgcaatca
 480
 gctgagatgt ctcttaagct t
 501

<210> 2594

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2594

Arg Val Arg Pro Pro Glu Asp Phe Tyr Ala Gln Ile Pro Leu Leu Arg
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 Glu Leu Ile Ser Ala Leu Ser Trp Gly Phe Met Glu Val Asp Glu Tyr
 20 25 30
 Glu Ala Asp Asp Ile Ile Gly Thr Leu Ala Arg Gln Ala Asp Glu Ala
 35 40 45
 Gly Asp Tyr Met Thr Tyr Ile Val Ser Ser Asp Leu Asp Met Leu Gln
 50 55 60
 Ile Val Asp Glu Asn Thr Lys Met Tyr Arg Ile Leu Arg Gly Phe Ser
 65 70 75 80
 Asp Leu Glu Glu Met Asp Thr Pro Ala Ile Glu Glu Lys Tyr Gly Ile
 85 90 95
 Leu Lys Ser Gln Phe Leu Asp Leu Lys Ala Leu Lys Gly Asp Asn Ser
 100 105 110
 Asp Asn Ile Pro Gly Val Pro Gly Ile Gly Glu Lys Thr Ala Val Lys
 115 120 125
 Leu Leu Asn Glu Tyr Gly Ser Leu Glu Gly Ile Tyr Asn His Ile Lys
 130 135 140
 Glu Ile Ser Gly Ala Thr Gln Lys Lys Leu Ile Ala Gly Arg Glu Ser
 145 150 155 160
 Ala Glu Met Ser Leu Lys Leu
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<210> 2595

<211> 928

<212> DNA

<213> Homo sapiens

<400> 2595

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 120
 gtcacaattt ctggggctca ctcatataac accaacaaat gggatatttg tgaagaactt
 180
 cgcctgcggg agcttgaaga agtcaaggcc agagctgctc agatggaaaa gaccatgcgg
 240
 tgggtggtcgg actgcactgc caactggaga gaaaaatgga gtaaagtctg agctgaaagg
 300
 aacagtgccg gaaaggaagg aagacaactc agaataaaac tagagatggc gatgaaagaa
 360
 tcggatccac tgaacagaa acagagtttg ccacttcaga aggaggcatt agaagctaata
 420
 gttaccagg atctgaagct tcttggttc gtagaagaat cctgtgaaca tacagaccaa
 480
 tttcaattga gttcacaat gcatgagtct atcagagagt atttggtaaa aagacaattt
 540
 tctacaaagg aggacacaaa taataaggaa caagggtgtg ttattgattc tctaaaatta
 600
 agtgaggaga tgaagcccaa tctagatggt gttgatttat tcaacaatgg tggttctgga
 660
 aacggtgaaa cgaaaactgg gctgagactg aaagcaataa atctgccttt ggaaaatgaa
 720
 gtaactgaaa tttcagcttt gcaggtgcat ttggatgaat tccaaaaaat cttatggaag
 780
 gaaagagaaa tgcgcacagc tttggaaaaa gaaatagaga gactggagtc ggctttgtct
 840
 ctgtggaagt ggaagtatga agaactgaaa gaatcaaagc caaaaaatgt gaaagagttt
 900
 gacattcttc ttggtcaaca taatgatg
 928

<210> 2596

<211> 309

<212> PRT

<213> Homo sapiens

<400> 2596

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Ser | Arg | Cys | Asn | Asn | Asp | Gln | Leu | Arg | His | Ala | Ala | Thr | Trp |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Trp | Pro | Leu | Pro | His | Pro | Pro | Gly | Ile | Pro | Val | Ile | Pro | Ala | Ser | His |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Phe | Met | Gly | Tyr | Asn | Leu | Met | Leu | Val | Thr | Ile | Ser | Gly | Ala | His | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Asn | Thr | Asn | Lys | Trp | Asp | Ile | Cys | Glu | Glu | Leu | Arg | Leu | Arg | Glu |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Leu | Glu | Glu | Val | Lys | Ala | Arg | Ala | Ala | Gln | Met | Glu | Lys | Thr | Met | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Trp | Trp | Ser | Asp | Cys | Thr | Ala | Asn | Trp | Arg | Glu | Lys | Trp | Ser | Lys | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Arg | Ala | Glu | Arg | Asn | Ser | Ala | Gly | Lys | Glu | Gly | Arg | Gln | Leu | Arg | Ile |

100 105 110
 Lys Leu Glu Met Ala Met Lys Glu Ser Asp Pro Leu Lys Gln Lys Gln
 115 120 125
 Ser Leu Pro Leu Gln Lys Glu Ala Leu Glu Ala Asn Val Thr Gln Asp
 130 135 140
 Leu Lys Leu Pro Gly Phe Val Glu Glu Ser Cys Glu His Thr Asp Gln
 145 150 155 160
 Phe Gln Leu Ser Ser Gln Met His Glu Ser Ile Arg Glu Tyr Leu Val
 165 170 175
 Lys Arg Gln Phe Ser Thr Lys Glu Asp Thr Asn Asn Lys Glu Gln Gly
 180 185 190
 Val Val Ile Asp Ser Leu Lys Leu Ser Glu Glu Met Lys Pro Asn Leu
 195 200 205
 Asp Gly Val Asp Leu Phe Asn Asn Gly Gly Ser Gly Asn Gly Glu Thr
 210 215 220
 Lys Thr Gly Leu Arg Leu Lys Ala Ile Asn Leu Pro Leu Glu Asn Glu
 225 230 235 240
 Val Thr Glu Ile Ser Ala Leu Gln Val His Leu Asp Glu Phe Gln Lys
 245 250 255
 Ile Leu Trp Lys Glu Arg Glu Met Arg Thr Ala Leu Glu Lys Glu Ile
 260 265 270
 Glu Arg Leu Glu Ser Ala Leu Ser Leu Trp Lys Trp Lys Tyr Glu Glu
 275 280 285
 Leu Lys Glu Ser Lys Pro Lys Asn Val Lys Glu Phe Asp Ile Leu Leu
 290 295 300
 Gly Gln His Asn Asp
 305

<210> 2597

<211> 631

<212> DNA

<213> Homo sapiens

<400> 2597

ccatgggtgg gaatgcaaga gacacactct agacttacta gaggagcaag agcaggactt
 60
 ggctgcacct gcagctgagg gttagcagga attaggagat aacagtagaa tagggctaga
 120
 ctgaaaaggc ctttgatgcc aggttaggaa atttacattt tatccacaaa atccaaatcc
 180
 tcctttaata atgagatgtc tttacaagtt tttgggcaag agtggtatgg ctgacctggg
 240
 gtcctgggaa ggaactgtgt ggggatgggtg tgcaggactt acctaggggtg ggaaaggcac
 300
 aagcagcatg gggctgtggc agctaccaga ggtaaaggga catttcaggg aaagacttgg
 360
 caggacaaga ccttccttgg atggatggat gaataccaga aacagggacc caagagaaag
 420
 gccgagtttc atagggagag aagatgggtc atgtatgagg catgttgagc ttgtactgat
 480
 ggtgagacgt ccagtcgaca gtactacca ctggccagtg agaaatgtgg gaccagggtt
 540
 caggaggaaa ctggggccgg aaatgagcat ttggaaggcg ccaggggtgga agcgggtggt
 600

tcactccacg agtgctattt cacttacgcg t
631

<210> 2598
<211> 108
<212> PRT
<213> Homo sapiens

<400> 2598
Met Gly Leu Trp Gln Leu Pro Glu Val Lys Gly His Phe Arg Glu Arg
1 5 10 15
Leu Gly Arg Thr Arg Pro Ser Leu Asp Gly Trp Met Asn Thr Arg Asn
20 25 30
Arg Asp Pro Arg Glu Arg Pro Ser Phe Ile Gly Arg Glu Asp Gly Ser
35 40 45
Cys Met Arg His Val Glu Leu Val Leu Met Val Arg Arg Pro Val Asp
50 55 60
Ser Thr Thr His Trp Pro Val Arg Asn Val Gly Pro Gly Phe Arg Arg
65 70 75 80
Lys Leu Gly Pro Glu Met Ser Ile Trp Lys Ala Pro Gly Trp Lys Arg
85 90 95
Val Val His Ser Thr Ser Ala Ile Ser Leu Thr Arg
100 105

<210> 2599
<211> 356
<212> DNA
<213> Homo sapiens

<400> 2599
nagatcttat acagggacgt gatgttggag aactactgga accttggttc tctgggactg
60
tgtcattttg atatgaatat tatctccatg ttggaggaag ggaaagagcc ctggactgtg
120
aagagctgtg tgaaaatagc aagaaaacca agaacgcggg aatgtgtcaa aggcgtggtc
180
acagatatcc ctctaaatg tacaatcaag gatttgctac caaaagagaa gagcagtaca
240
gaagcagtat tccacacagt ggtgttggaa agacacgaaa gccctgacat tgaagacttt
300
tccttcaagg aaccccagaa aaatgtgcat gattttgagt gtcaatggag agatgn
356

<210> 2600
<211> 118
<212> PRT
<213> Homo sapiens

<400> 2600
Xaa Ile Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Trp Asn Leu Val
1 5 10 15
Ser Leu Gly Leu Cys His Phe Asp Met Asn Ile Ile Ser Met Leu Glu
20 25 30
Glu Gly Lys Glu Pro Trp Thr Val Lys Ser Cys Val Lys Ile Ala Arg

```

      35              40              45
Lys Pro Arg Thr Arg Glu Cys Val Lys Gly Val Val Thr Asp Ile Pro
  50              55              60
Pro Lys Cys Thr Ile Lys Asp Leu Leu Pro Lys Glu Lys Ser Ser Thr
  65              70              75              80
Glu Ala Val Phe His Thr Val Val Leu Glu Arg His Glu Ser Pro Asp
      85              90              95
Ile Glu Asp Phe Ser Phe Lys Glu Pro Gln Lys Asn Val His Asp Phe
      100              105              110
Glu Cys Gln Trp Arg Asp
      115

```

<210> 2601
 <211> 329
 <212> DNA
 <213> Homo sapiens

```

<400> 2601
gcgccgatca tgatctacgg cgacgacgtc acccacctgc tcaccgaaga aggcacgccc
60
tacttgtaca aggcggttc cctggaagag cgccaagcga tgatcgccgg cggtggtggg
120
gtcaccgcct tcggttgcg ccacaacccc aaggacactg cgcgcatgcg ccgcgaaggc
180
ttgatcgctt tgcccgaaga cctcggtatc cgccgcaccg acgccacccg cgaactgttg
240
gccgccaaga gcgtggccga cctggtggag tggtcgggtg gcttgtgcaa cccgcccggc
300
aagttcagga gctggtaaata gcgcgcct
329

```

<210> 2602
 <211> 105
 <212> PRT
 <213> Homo sapiens

```

<400> 2602
Ala Pro Ile Met Ile Tyr Gly Asp Asp Val Thr His Leu Leu Thr Glu
  1              5              10              15
Glu Gly Ile Ala Tyr Leu Tyr Lys Ala Arg Ser Leu Glu Glu Arg Gln
      20              25              30
Ala Met Ile Ala Gly Gly Gly Gly Val Thr Ala Phe Gly Leu Arg His
      35              40              45
Asn Pro Lys Asp Thr Ala Arg Met Arg Arg Glu Gly Leu Ile Ala Leu
      50              55              60
Pro Glu Asp Leu Gly Ile Arg Arg Thr Asp Ala Thr Arg Glu Leu Leu
      65              70              75              80
Ala Ala Lys Ser Val Ala Asp Leu Val Glu Trp Ser Gly Gly Leu Cys
      85              90              95
Asn Pro Pro Ala Lys Phe Arg Ser Trp
      100              105

```

<210> 2603
 <211> 423

<212> DNA

<213> Homo sapiens

<400> 2603

tcatgatcca ttgctctacc ctttacggtt gtgcacctac gccaggtcg gtggtcagga
60
gcatcggttc ggtggtagcg aggtcgagga cttccttcac gccgttggtc gcggaggga
120
ggttgtggta agtggtcagg tgggccacga tctgggcact gatcacctcg gtgaaatcga
180
agctctggtt accctgagcg gtcgccgaca cgacacggtc cacaccggag accagaccga
240
tctcggagat gatcgcgtaa ctttcattgt cgtagaggat cttgcacgca tcgatgatgc
300
gcttgatctc cttggcagtg aagatgattt ccatcggggg gttggccgac agatactgac
360
cggagctggg ggtcacctgg gtggaatcca ggtcatccgg aaccggggtc aggttggtccg
420
cgg
423

<210> 2604

<211> 103

<212> PRT

<213> Homo sapiens

<400> 2604

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Ile | Ile | Phe | Thr | Ala | Lys | Glu | Ile | Lys | Arg | Ile | Ile | Asp | Ala |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Cys | Lys | Ile | Leu | Tyr | Asp | Asn | Glu | Gly | Tyr | Ala | Ile | Ile | Ser | Glu | Ile |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Gly | Leu | Val | Ser | Gly | Val | Asp | Arg | Val | Val | Ser | Ala | Thr | Ala | Gln | Gly |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Asn | Gln | Ser | Phe | Asp | Phe | Thr | Glu | Val | Ile | Ser | Ala | Gln | Ile | Val | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| His | Leu | Thr | Thr | Tyr | His | Asn | Leu | Pro | Ser | Ala | Asn | Asn | Gly | Val | Lys |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Glu | Val | Leu | Asp | Leu | Gly | Thr | Thr | Glu | Pro | Met | Leu | Leu | Thr | Thr | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Gly | Val | Gly | Ala | Gln | Pro | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

<210> 2605

<211> 354

<212> DNA

<213> Homo sapiens

<400> 2605

ngggaggagg ggcattgtcaa aagcgactgt atccagaggg tttgatttaa acatttttca
60
aaacatatgt ggcaaacagc ggggggagggg gatctcacca acgtttttct ccactttctc
120
tttgcattgt gggacctgtt ccactttcaa aatgtgtcat tttggaagga aaggaggaa
180

caactacttg aaaggaatac acgtcagtat gagccctttc tcctcagcag aagggtgccc
 240
 caaagtacct cctctgaggc gagagaaagg agagaggagg agagacagct ttcacaaat
 300
 ggggcaccca ggactctagg gagagaggca cgttctcaca aaggcccttt gaggc
 354

<210> 2606

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2606

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Lys | Ala | Thr | Val | Ser | Arg | Gly | Phe | Asp | Leu | Asn | Ile | Phe | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Ile | Cys | Gly | Lys | Gln | Arg | Gly | Glu | Gly | Ile | Ser | Pro | Thr | Phe | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Thr | Ser | Ser | Leu | His | Ala | Gly | Thr | Cys | Ser | Thr | Phe | Lys | Met | Cys |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| His | Phe | Gly | Arg | Lys | Gly | Arg | Asn | Asn | Tyr | Leu | Lys | Gly | Ile | His | Val |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ser | Met | Ser | Pro | Phe | Ser | Ala | Glu | Gly | Cys | Pro | Lys | Val | Pro | Pro | |
| 65 | | | | 70 | | | | | 75 | | | | 80 | | |
| Leu | Arg | Arg | Glu | Lys | Gly | Glu | Arg | Arg | Arg | Asp | Ser | Phe | His | Gln | Met |
| | | | 85 | | | | 90 | | | | | | 95 | | |
| Gly | His | Pro | Gly | Leu | | | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

<210> 2607

<211> 297

<212> DNA

<213> Homo sapiens

<400> 2607

tgatcaagaa caatgatacg atatcctaac caacagagga agcaacggaa gttgttggtg
 60
 tttttatgct gttttttttt tttgagaacg gatcttgccc ctgccccag gccggaatgg
 120
 atgacatgga cagaaccccg tcggaaaaaa gccggaatgt gcaaacccaa attcccacca
 180
 cacggggggc ctaacaattg gatccatccc cnaaaaaanc cntnncaaaa aaagntaaaa
 240
 actttttttt ttttaaannn anacccccaa aaaaaccaa aaaaaaatt taaaaaa
 297

<210> 2608

<211> 95

<212> PRT

<213> Homo sapiens

<400> 2608

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ile | Arg | Tyr | Pro | Asn | Gln | Gln | Arg | Lys | Gln | Arg | Lys | Leu | Leu | Leu |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Phe | Leu | Cys | Cys | Phe | Phe | Phe | Leu | Arg | Thr | Asp | Leu | Ala | Pro | Ala | Pro |

```

      20      25      30
Arg Pro Glu Trp Met Thr Trp Thr Glu Pro Arg Arg Lys Lys Ala Gly
      35      40      45
Met Cys Lys Pro Lys Phe Pro His Gly Gly Pro Asn Asn Trp Ile
      50      55      60
His Pro Xaa Lys Xaa Pro Xaa Gln Lys Lys Xaa Lys Thr Phe Phe Phe
65      70      75      80
Leu Xaa Xaa Xaa Pro Gln Lys Asn Gln Lys Lys Lys Phe Lys Lys
      85      90      95

```

<210> 2609
 <211> 305
 <212> DNA
 <213> Homo sapiens

```

<400> 2609
nccgcatcgg catgatgtca ggcaaagatg atcctggcat ggcaaaggta tacggttttg
60
ttgacacgtc cctgacgata cctatccgct catctggaga cccatgcggt ccttggaccc
120
caattgccta cgaaaaaatt ttttttttcc ccccaaaaaa acaccccccc ctcgcatctg
180
tgaaagtctt acctcggggg cgatcatctcg gctgtcatcg tcggcaaate actcagctgg
240
ccgtaccctt cgtcatcgcc cgggccaccg acctcgacgg cncagcgtgc acggcaacga
300
ccacc
305

```

<210> 2610
 <211> 98
 <212> PRT
 <213> Homo sapiens

```

<400> 2610
Met Met Ser Gly Lys Asp Asp Pro Gly Met Ala Lys Val Tyr Gly Phe
1      5      10      15
Val Asp Thr Ser Leu Thr Ile Pro Ile Arg Ser Ser Gly Asp Pro Cys
      20      25      30
Val Pro Trp Thr Pro Ile Ala Tyr Glu Lys Ile Phe Phe Phe Pro Pro
      35      40      45
Lys Lys His Pro Pro Leu Ala Ser Val Lys Val Leu Pro Arg Gly Arg
      50      55      60
His Leu Gly Cys His Arg Arg Gln Ile Thr Gln Leu Ala Val Pro Phe
65      70      75      80
Val Ile Ala Arg Ala Thr Asp Leu Asp Gly Xaa Ala Cys Thr Ala Thr
      85      90      95
Thr Thr

```

<210> 2611
 <211> 342
 <212> DNA
 <213> Homo sapiens

<400> 2611
 gccgccgcga tcgacggcga ctctctgacc agctgggtgt ccagctcgct gcaaaccgct
 60
 gtggggcaat ggcttcaggt ggacttcgac catccggtga ccaacgcgac catcacctg
 120
 acgcccagcg ccaccgctgt cggagctcag gtgcgccgcg tcgaggtggc aacagccaac
 180
 ggcaccagca caattcgctt cgaccagccc ggcaagccgc tgacggcggc gctgccctac
 240
 ggcgagacct catgggtccg gttcaccgcg accggcaccg acgacggctc ccccggcgtg
 300
 cagttcggca tcaccgactt ctccgtgacg cagtacgacg cg
 342

<210> 2612
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 2612
 Ala Ala Ala Ile Asp Gly Asp Ser Ser Thr Ser Trp Val Ser Ser Ser
 1 5 10 15
 Leu Gln Thr Ala Val Gly Gln Trp Leu Gln Val Asp Phe Asp His Pro
 20 25 30
 Val Thr Asn Ala Thr Ile Thr Leu Thr Pro Ser Ala Thr Ala Val Gly
 35 40 45
 Ala Gln Val Arg Arg Val Glu Val Ala Thr Ala Asn Gly Thr Ser Thr
 50 55 60
 Ile Arg Phe Asp Gln Pro Gly Lys Pro Leu Thr Ala Ala Leu Pro Tyr
 65 70 75 80
 Gly Glu Thr Ser Trp Val Arg Phe Thr Ala Thr Gly Thr Asp Asp Gly
 85 90 95
 Ser Pro Gly Val Gln Phe Gly Ile Thr Asp Phe Ser Val Thr Gln Tyr
 100 105 110
 Asp Ala

<210> 2613
 <211> 414
 <212> DNA
 <213> Homo sapiens

<400> 2613
 acgcgtgtgg gttgtgcaca gggcatggct gctctggaca ggctgggccc ctgggcatca
 60
 ttctcctcct ccaaaagggtg agggctctgac ctaatggtac tttgtctgat gttttccaga
 120
 tatgccccta ctgggaaggg ccaagtgggc aggcagagtc tgggggtggag cgaggtgggg
 180
 ctgggaagca ctctgtcttt tctgctgccc cagaacgaat gcaagttctg gcagcttctc
 240
 ctctcctcgg gaggaggaaa ggagggtctg cctccaggtc tcaggctgag ggagtgggct
 300

ggagaccctc tagatggcca gcagaggctg gcctctgtga gaaggcttcc ttgcgtgact
360
ctggggccccc tcccaggctc tcctcgtggc aggcagggac ttgggccagc atgg
414

<210> 2614
<211> 107
<212> PRT
<213> Homo sapiens

<400> 2614
Met Val Leu Cys Leu Met Phe Ser Arg Tyr Ala Pro Thr Gly Lys Gly
1 5 10 15
Gln Val Gly Arg Gln Ser Leu Gly Trp Ser Glu Val Gly Leu Gly Ser
20 25 30
Thr Pro Ala Phe Leu Leu Pro Gln Asn Glu Cys Lys Phe Trp Gln Leu
35 40 45
Leu Leu Leu Leu Gly Gly Gly Lys Glu Gly Ser Pro Pro Gly Leu Arg
50 55 60
Leu Arg Glu Trp Ala Gly Asp Pro Leu Asp Gly Gln Gln Arg Leu Ala
65 70 75 80
Ser Val Arg Arg Leu Pro Cys Val Thr Leu Gly Pro Leu Pro Gly Ser
85 90 95
Pro Arg Gly Arg Gln Gly Leu Gly Pro Ala Trp
100 105

<210> 2615
<211> 394
<212> DNA
<213> Homo sapiens

<400> 2615
nnngccgccc ccctcggccg cagcgcgctt cttttgcgcn ncgacgtcag ccagaaggcg
60
gacgtcgacg ccattgctgaa ggaaacgctg gccaggttcg gccacatcga taccctcgtc
120
aacaatgcgg gcgtcacgca tgcggccgat ttctcgtacg tgtgcgaaga cgatttcgac
180
cgggtcatgc gcattaacct gaaatcgatg ttctgtgctg gccaggccgc ggcgcgcgag
240
atggtcaagc gcaacagcgg ctgcatcatc aacatgtcca gcgtgaatgc ggaactggcc
300
attccgaacc aggtgccgta cgtggtgtcg aaaggcgcca tcaaccagct gaccaaggctc
360
atggccttga acctggcgcc gcacgggtgcg cgct
394

<210> 2616
<211> 131
<212> PRT
<213> Homo sapiens

<400> 2616
Xaa Ala Ala Ala Leu Gly Arg Ser Ala Leu Leu Leu Arg Xaa Asp Val


```

      1           5           10           15
Ser Gln Lys Ala Asp Val Asp Ala Met Leu Lys Glu Thr Leu Ala Gln
      20           25           30
Phe Gly His Ile Asp Ile Leu Val Asn Asn Ala Gly Val Thr His Ala
      35           40           45
Ala Asp Phe Leu Asp Val Cys Glu Asp Asp Phe Asp Arg Val Met Arg
      50           55           60
Ile Asn Leu Lys Ser Met Phe Leu Cys Gly Gln Ala Ala Ala Arg Glu
      65           70           75           80
Met Val Lys Arg Asn Ser Gly Cys Ile Ile Asn Met Ser Ser Val Asn
      85           90           95
Ala Glu Leu Ala Ile Pro Asn Gln Val Pro Tyr Val Val Ser Lys Gly
      100          105          110
Ala Ile Asn Gln Leu Thr Lys Val Met Ala Leu Asn Leu Ala Pro His
      115          120          125
Gly Ala Arg
      130

```

<210> 2617

<211> 513

<212> DNA

<213> Homo sapiens

<400> 2617

```

naccggttgg catcatgctc acagcactgg gggttccctt ctttcttttc ctccctcagaa
60
agacattgtg agatgggaaa tatcatggaa acacctatac tttccggctc ccacttgaac
120
gtcaccttgg gaaatcacia gattctcaat gacgtctccg tatcattcca agcgggagtt
180
atgcacgcca tacttggccc caacggttct gggaagacca ccctggtacg cacgttatgc
240
ggagccctct ccccgagtc ggggagcgtc aaattcgatg gaacggatct atccacgatg
300
tcgcatacct gtatcgcgcg tcgtattgcg atcgtctggc agagcgcgac cgctccctct
360
gacctcaccg tacgtcacct cgttggctac gggagatatg cccacacacc gtggtggcag
420
ataagggaca ccagcgccga cagccatgtg gaacaagcaa tggagctggc cgatgtcacg
480
tgcttcgceg atcgacggt caccactctc tca
513

```

<210> 2618

<211> 171

<212> PRT

<213> Homo sapiens

<400> 2618

```

Xaa Arg Leu Ala Ser Cys Ser Gln His Trp Gly Phe Pro Ser Phe Phe
      1           5           10           15
Ser Ser Ser Glu Arg His Cys Glu Met Gly Asn Ile Met Glu Thr Pro
      20           25           30
Ile Leu Ser Gly Ser His Leu Asn Val Thr Leu Gly Asn His Lys Ile

```

```

      35          40          45
Leu Asn Asp Val Ser Val Ser Phe Gln Ala Gly Val Met His Ala Ile
  50          55          60
Leu Gly Pro Asn Gly Ser Gly Lys Thr Thr Leu Val Arg Thr Leu Cys
  65          70          75          80
Gly Ala Leu Ser Pro Glu Ser Gly Ser Val Lys Phe Asp Gly Thr Asp
      85          90          95
Leu Ser Thr Met Ser Ala Ser Cys Ile Ala Arg Arg Ile Ala Ile Val
      100          105          110
Trp Gln Ser Ala Thr Ala Pro Ser Asp Leu Thr Val Arg His Leu Val
      115          120          125
Gly Tyr Gly Arg Tyr Ala His Thr Pro Trp Trp Gln Ile Arg Asp Thr
      130          135          140
Ser Ala Asp Ser His Val Glu Gln Ala Met Glu Leu Ala Asp Val Thr
  145          150          155          160
Cys Phe Ala Asp Arg Arg Val Thr Thr Leu Ser
      165          170

```

<210> 2619
 <211> 348
 <212> DNA
 <213> Homo sapiens

```

<400> 2619
nnaaatttcg acgacettga ggttttcctc aagctgttgc cgcgttcggc anccggggaa
60
cggatgaacc cgtacaactc ggtgtggagc ggtgtgaccg acggtgacgg gccgcaggaa
120
cagcacgtca ttttccttga taacggtcgt accgacgtgc ttgccgacac ccttggtcgc
180
gaagtgttgc ggtgcatccg gtgtgcttcg tgtatcaata tctgcccggg ttacgagcgg
240
gcggggcggtc acccttacgg ctcggtgtac cccggggccga ttggtgcggg gctcaatccg
300
cagctgcggg gcgtggagca tcccgtcgat cgtggtctgc catacgcg
348

```

<210> 2620
 <211> 116
 <212> PRT
 <213> Homo sapiens

```

<400> 2620
Xaa Asn Phe Asp Asp Leu Glu Val Phe Leu Lys Leu Leu Pro Arg Ser
1          5          10          15
Ala Xaa Gly Glu Arg Met Asn Pro Tyr Asn Ser Val Trp Ser Gly Val
      20          25          30
Thr Asp Gly Asp Gly Pro Gln Glu Gln His Val Ile Phe Leu Asp Asn
      35          40          45
Gly Arg Thr Asp Val Leu Ala Asp Thr Leu Gly Arg Glu Val Leu Arg
      50          55          60
Cys Ile Arg Cys Ala Ser Cys Ile Asn Ile Cys Pro Val Tyr Glu Arg
      65          70          75          80
Ala Gly Gly His Pro Tyr Gly Ser Val Tyr Pro Gly Pro Ile Gly Ala

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 85 | | 90 | | 95 | | | | | | | | | | |
| Val | Leu | Asn | Pro | Gln | Leu | Arg | Gly | Val | Glu | His | Pro | Val | Asp | Arg | Gly |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Leu | Pro | Tyr | Ala | | | | | | | | | | | | |
| | | 115 | | | | | | | | | | | | | |

<210> 2621
 <211> 1485
 <212> DNA
 <213> Homo sapiens

<400> 2621
 acgcgtgcag gtaaaccaga ggccgtgtga ccagctcagt gctggtttac ggaacaactc
 60
 ttacttttaa aaattacttg ttcccccaaa ttgttgagtg ccgccgtttg gtttcctatg
 120
 tttctttcc ctgttttgat ttgtctgaag ggagaggtgg tgggtggttag gatcagagct
 180
 ctctggcat ccgtggggag gatttgctgg tgggtggcttc gggctcatgc ccagacacac
 240
 tcaactcccc gtctgtccaa ggcctccctt tcccctttgc tgggtgggagg agctcgtgtg
 300
 ctcttggtcc gcttactgga agggcgtttt tcagagctgc agggacaggg tgagcagctg
 360
 aagggctagg agggaagccg gccccgctc tgcagaagct gcatttcagc tgaatctgtg
 420
 tttcagctc agttggttgc accgttagcc cctctcctcc cggatggtea tgtttttgtc
 480
 acattagaga ataaacagcc acacacacat ttttttttcc tttaaaacag taacttgaa
 540
 atatgaaaag gccagaagga ggagcaaggg ctgttttctg gagtgggtga ggtgtgttcc
 600
 tgcagttgtc attgtcttct ccaccgggct gttcccattt atttcctgtg gaactgaatc
 660
 cctctccct ccaactcttg ggagcccagg tggtccttgg ccaccattca ggctttccaa
 720
 gaagccaacc accttgaga ttttttttct tgaatttcgc tgttttcttc tgcttccttt
 780
 agataaaaag cagctcaaga gaccttatct tagggatgag aaaaacatgc atattaattc
 840
 catctgagt attgtcagt taaggccttt taaaacaaaa gcaagttctt tgtaggaat
 900
 tggtaaaaat tcatctcttt cttaagccc atcaactccc aggacgggtt gagttactca
 960
 gttacctaa cttgtattc atccaaatca ttttctagag tcaactgtata agggctctatg
 1020
 agtagctgtg tatgaataaa tattacctgt ctacctcaa atacacatac tgctgaagca
 1080
 ttctgtacaa ccgtgtgtta tcacagtga gttttaagt taacngttga acttagcat
 1140
 tttctgtgt ggcggaataa gaaaggatnt aacagttaca agcctccaaa ttcagataaa
 1200
 attaaatcac agttcagatg aaactgaata tcattgtaat aatctcataa tatatatttg
 1260

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<210> 2622

<211> 83

<212> PRT

<213> Homo sapiens

<400> 2622

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| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Val | Arg | Ile | Arg | Ala | Leu | Leu | Ala | Ser | Val | Gly | Arg | Ile | Cys | Trp | Trp |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Trp | Leu | Arg | Ala | His | Ala | Gln | Thr | His | Ser | Leu | Pro | Arg | Leu | Ser | Lys |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ala | Ser | Pro | Ser | Pro | Leu | Leu | Val | Gly | Gly | Ala | Arg | Val | Leu | Leu | Gly |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Arg | Leu | Leu | Glu | Gly | Arg | Phe | Ser | Glu | Leu | Gln | Gly | Gln | Gly | Glu | Gln |
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| Leu | Lys | Gly | | | | | | | | | | | | | |

<210> 2623

<211> 3524

<212> DNA

<213> Homo sapiens

<400> 2623

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<211> 895

<212> PRT

<213> Homo sapiens

<400> 2624

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1867

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 Gly Lys Pro Ser Gly Ser Leu Gly Ile Val Ser Asn Asn Ser Val Glu
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 Thr Ile Gly Leu Leu Gln Ser Thr Ser Gly Lys Gln Gly Gln Ile Ser
 515 520 525
 Ser Asn Tyr Asp Asp Ala Met Gln Phe Ser Lys Lys Arg Arg Tyr Leu
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 Val Ser Gln Gln Ser Val Ile Gln Ser Ala Gly Val Ser Val Leu Asp
 565 570 575
 Asn Glu Ala Pro Leu Ser Leu Ile Asp Ser Ser Ala Leu Asn Ala Glu
 580 585 590
 Ile Lys Ser Cys His Asp Lys Ser Gly Ile Pro Asp Glu Val Leu Gln
 595 600 605
 Ser Ile Leu Asp Gln Tyr Ser Asn Lys Ser Glu Ser Gln Lys Glu Asp
 610 615 620
 Pro Phe Asn Ile Ala Glu Pro Arg Val Asp Leu His Thr Ser Gly Glu
 625 630 635 640
 His Ser Glu Leu Val Gln Glu Glu Asn Leu Ser Pro Gly Thr Gln Thr
 645 650 655
 Pro Ser Asn Asp Lys Ala Ser Met Leu Gln Glu Tyr Ser Lys Tyr Leu
 660 665 670
 Gln Gln Ala Phe Glu Lys Ser Thr Asn Ala Ser Phe Thr Leu Gly His
 675 680 685
 Gly Phe Gln Phe Val Ser Leu Ser Ser Pro Leu His Asn His Thr Leu
 690 695 700
 Phe Pro Glu Lys Gln Ile Tyr Thr Thr Ser Pro Leu Glu Cys Gly Phe
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 Gly Gln Ser Val Thr Ser Val Leu Pro Ser Ser Leu Pro Lys Pro Pro
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 740 745 750
 Asp Ala Thr His Gln Gln Leu Thr Pro Ser Gln Glu Leu Asp Asp Leu
 755 760 765
 Ile Asp Ser Gln Lys Asn Leu Glu Thr Ser Ser Ala Phe Gln Ser Ser
 770 775 780
 Ser Gln Lys Leu Thr Ser Gln Lys Glu Gln Lys Asn Leu Glu Ser Ser
 785 790 795 800
 Thr Gly Phe Gln Ile Pro Ser Gln Glu Leu Ala Ser Gln Ile Asp Pro
 805 810 815
 Gln Lys Asp Ile Glu Pro Arg Thr Thr Tyr Gln Ile Glu Asn Phe Ala
 820 825 830
 Gln Ala Phe Gly Ser Gln Phe Lys Ser Gly Ser Arg Val Pro Met Thr
 835 840 845
 Phe Ile Thr Asn Ser Asn Gly Glu Val Asp His Arg Val Arg Thr Ser
 850 855 860
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890

895

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<211> 1398

<212> DNA

<213> Homo sapiens

<400> 2625

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<211> 137
<212> PRT
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35 40 45
Glu Gln Leu Gly Ser Tyr Asp Pro Leu Pro Asn Ser His Gly Glu Lys
50 55 60
Leu Val Ala Leu Asn Leu Asp Arg Ile Arg His Trp Ile Gly Cys Gly
65 70 75 80
Ala His Leu Ser Lys Pro Met Glu Lys Leu Leu Gly Leu Ala Gly Phe
85 90 95
Phe Pro Leu His Pro Met Met Ile Thr Asn Ala Glu Arg Leu Arg Arg
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<211> 320
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<213> Homo sapiens

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<210> 2628
<211> 90
<212> PRT
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<400> 2628
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Ala Pro Phe Ser Ser Thr Ser Phe Ser Val Pro Lys Lys Ala Arg Ala
      35           40           45
Asp Cys Thr Cys Ile Ser Thr Ala Glu Leu Phe Ile Cys Asp Ser Ala
      50           55           60
Phe Phe Arg Ser Ser Gly Ser Arg Glu Arg His Ser Phe Lys Val Phe
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Phe Leu Cys Ile Pro Pro Pro Leu His Ala
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<210> 2629

<211> 65Q

<212> DNA

<213> Homo sapiens

<400> 2629

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<210> 2630

<211> 58

<212> PRT

<213> Homo sapiens

<400> 2630

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Phe Ser Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg
      20           25           30
Lys Cys Ala Asn Asp Val Phe Gln Val Gly Ala Arg Asp Gly Gln Gly
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<210> 2631
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<210> 2632

<211> 550

<212> PRT

<213> Homo sapiens

<400> 2632

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| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Val | Tyr | Asp | Leu | Asp | Asn | Pro | Asn | Tyr | Thr | Ile | Pro | Glu | Glu | Gly | Asp |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Ile | Leu | Lys | Phe | Asn | Ser | Lys | Phe | Glu | Ser | Gly | Asn | Leu | Arg | Lys | Val |
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| Cys | Tyr | Tyr | Lys | Asn | His | Phe | Ser | Arg | Ser | Ser | Val | Ala | Ala | Gly | Gly |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Gln | Lys | Gly | Lys | Ser | Tyr | Tyr | Thr | Ile | Thr | Phe | Thr | Val | Asn | Phe | Pro |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| His | Lys | Asp | Asp | Val | Cys | Tyr | Phe | Ala | Tyr | His | Tyr | Pro | Tyr | Thr | Tyr |
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| Ser | Thr | Leu | Gln | Met | His | Leu | Gln | Lys | Leu | Glu | Ser | Ala | His | Asn | Pro |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Gln | Gln | Ile | Tyr | Phe | Arg | Lys | Asp | Val | Leu | Cys | Glu | Thr | Leu | Ser | Gly |
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| Asn | Ser | Cys | Pro | Leu | Val | Thr | Ile | Thr | Ala | Met | Pro | Glu | Ser | Asn | Tyr |
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 Thr Leu Glu Tyr Leu Met Ser Asn Asn Pro Thr Ala Gln Ser Leu Leu
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 Glu Ser Tyr Ile Phe Lys Ile Val Pro Met Leu Asn Pro Asp Gly Val
 275 280 285
 Ile Asn Gly Asn His Arg Cys Ser Leu Ser Gly Glu Asp Leu Asn Arg
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 Gln Trp Gln Ser Pro Ser Pro Asp Leu His Pro Thr Ile Tyr His Ala
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 Lys Gly Leu Leu Gln Tyr Leu Ala Ala Val Lys Arg Leu Pro Leu Val
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 Tyr Cys Asp Tyr His Gly His Ser Arg Lys Lys Asn Val Phe Met Tyr
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 Gly Cys Ser Ile Lys Glu Thr Val Trp His Thr Asn Asp Asn Ala Thr
 355 360 365
 Ser Cys Asp Val Val Glu Asp Thr Gly Tyr Arg Thr Leu Pro Lys Ile
 370 375 380
 Leu Ser His Ile Ala Pro Ala Phe Cys Met Ser Ser Cys Ser Phe Val
 385 390 395 400
 Val Glu Lys Ser Lys Glu Ser Thr Ala Arg Val Val Val Trp Arg Glu
 405 410 415
 Ile Gly Val Gln Arg Ser Tyr Thr Met Glu Ser Thr Leu Cys Gly Cys
 420 425 430
 Asp Gln Gly Lys Tyr Lys Gly Leu Gln Ile Gly Thr Arg Glu Leu Glu
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 Glu Met Gly Ala Lys Phe Cys Val Gly Leu Leu Arg Leu Lys Arg Leu
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 465 470 475 480
 Asn Asp Leu Ile Glu Ser Ser Cys Lys Val Thr Ser Pro Thr Thr Tyr
 485 490 495
 Val Leu Asp Glu Asp Glu Pro Arg Phe Leu Glu Glu Val Asp Tyr Ser
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 Ala Glu Ser Asn Asp Glu Leu Asp Ile Glu Leu Ala Glu Asn Val Gly
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<211> 1569

<212> DNA

<213> Homo sapiens

<400> 2633

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<211> 59

<212> PRT

<213> Homo sapiens

<400> 2634

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<212> DNA

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<211> 63
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<210> 2638

<211> 263

<212> PRT

<213> Homo sapiens

<400> 2638

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35 40 45
Leu Gln Glu Ala Gly Thr Phe Arg His Thr Leu Trp Lys Arg Val Gln
50 55 60
Gly Ala Val Thr Pro Leu Leu Ala Ser Met Ile Ser Phe Ile Asp Arg
65 70 75 80
Asp Gly Asn Leu Glu Leu Leu Thr Arg Pro Asp Thr Pro Pro Trp Ala
85 90 95
Arg Asp Leu Trp Met Phe Ile Phe Ser Asp Thr Met Leu Leu Asn Ile
100 105 110
Pro Leu Val Met Asn Asn Glu Arg His Lys Gly Glu Met Ala Tyr Ile
115 120 125
Val Val Gln Asn His Met Asn Leu Ser Glu Asn Ala Ser Asn Asn Val
130 135 140
Pro Phe Ser Trp Lys Ile Lys Asp Tyr Leu Glu Glu Leu Trp Val Gln
145 150 155 160
Ala Gln Tyr Ile Thr Asp Ala Glu Gly Leu Pro Lys Lys Phe Val Asp
165 170 175
Ile Phe Gln Gln Thr Pro Leu Gly Arg Phe Leu Ala Gln Leu His Gly
180 185 190
Glu Pro Gln Gln Glu Leu Leu Gln Cys Tyr Leu Lys Asp Phe Ile Leu
195 200 205
Leu Thr Met Arg Val Ser Thr Glu Glu Glu Leu Lys Phe Leu Gln Met
210 215 220
Ala Leu Trp Ser Cys Thr Arg Lys Leu Lys Ala Ala Ser Glu Ala Pro
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<210> 2639

<211> 3777

<212> DNA

<213> Homo sapiens

<400> 2639

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<211> 645

<212> PRT

<213> Homo sapiens

<400> 2640

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| Leu | Gly | Pro | Trp | Ala | Glu | Asn | Asp | His | Leu | Lys | Lys | Glu | Thr | Ser | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
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| Lys | Leu | Ser | Arg | Gly | Gln | His | Cys | Ile | Glu | Ile | Ser | Ser | Leu | Pro | Gly |
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| Ser | Arg | Asp | Ile | Asp | Pro | His | Val | Glu | Gly | Gln | Ile | Gly | Gln | Val | Ala |

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<212> DNA

<213> Homo sapiens

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| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| 145 | | 150 | | 155 | | 160 |
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<213> Homo sapiens

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| Leu | Gly | Asp | Trp | Glu | Gln | Leu | Gly | Leu | Glu | Gln | Gly | Asp | Thr | Phe | Trp |
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| Asp | Thr | Ala | Leu | Asp | Asn | Cys | Gln | Asp | Leu | Phe | Leu | Leu | Asp | Pro | Pro |
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| Arg | Pro | Asn | Leu | Thr | Ser | His | Pro | Asp | Gly | Ser | Glu | Asp | Leu | Glu | Pro |
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| Leu | Ala | Gly | Gly | Ser | Pro | Glu | Ala | Thr | Ser | Pro | Asp | Val | Thr | Glu | Thr |
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| Lys | Asn | Ser | Pro | Leu | Met | Glu | Asp | Phe | Phe | Glu | Glu | Gly | Phe | Ser | Gln |
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| Glu | Ile | Ile | Glu | Met | Leu | Ser | Lys | Asp | Gly | Phe | Trp | Asn | Ser | Asn | Phe |
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| Glu | Cys | Glu | Gln | Gly | Phe | Asp | Arg | Asn | Ala | Ser | Leu | Ser | Val | Tyr | Pro |
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<211> 1018

<212> DNA

<213> Homo sapiens

<400> 2645

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<400> 2646
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 Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Ile Thr Ile Leu Leu Leu Asn
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 Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
 65 70 75 80
 Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu
 85 90 95
 Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly
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 Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala
 115 120 125
 Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp
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 Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
 145 150 155 160
 Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
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<210> 2647
 <211> 1368
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 780
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<210> 2648

<211> 389

<212> PRT

<213> Homo sapiens

<400> 2648

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| 5 | | | | 10 | | | | | 15 | | | | | | |
| Lys | Leu | Phe | Pro | His | Val | Thr | Pro | Lys | Gly | Ile | Asn | Gly | Ile | Asp | Phe |
| | | 20 | | | | | 25 | | | | 30 | | | | |
| Lys | Gly | Glu | Ala | Ile | Thr | Phe | Lys | Ala | Thr | Thr | Ala | Gly | Ile | Leu | Ala |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Thr | Leu | Ser | His | Cys | Ile | Glu | Leu | Met | Val | Lys | Arg | Glu | Asp | Ser | Trp |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Gln | Lys | Arg | Leu | Asp | Lys | Glu | Thr | Glu | Lys | Lys | Arg | Arg | Thr | Glu | Glu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Tyr | Lys | Asn | Ala | Met | Thr | Glu | Leu | Lys | Lys | Lys | Ser | His | Phe | Gly |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gly | Pro | Asp | Tyr | Glu | Glu | Gly | Pro | Asn | Ser | Leu | Ile | Asn | Glu | Glu | Glu |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Phe | Phe | Asp | Ala | Val | Glu | Ala | Ala | Leu | Asp | Arg | Gln | Asp | Lys | Ile | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Gln | Ser | Gln | Ser | Glu | Lys | Val | Arg | Leu | His | Trp | Pro | Thr | Ser | Leu |

130 135 140
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 Val Gly Gly Asp Ala Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met
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 Lys Val Tyr Arg Arg Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro
 195 200 205
 Leu Lys Ala Thr His Ala Val Lys Gly Val Thr Gly His Glu Val Cys
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 Asn Tyr Phe Trp Asn Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile
 225 230 235 240
 Glu Asn Phe His Val Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile
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 Tyr Gln Thr His Lys Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu
 260 265 270
 Tyr Leu Ser Val Ile Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro
 275 280 285
 Glu Thr Trp Ile Val Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro
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 Leu Asn Asn Arg Cys Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys
 305 310 315 320
 Gln Thr Leu Val Ser Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp
 325 330 335
 Asn Ile Leu Cys Lys Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly
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 Trp Ala Pro Ala Ser Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro
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<211> 1299

<212> DNA

<213> Homo sapiens

<400> 2649

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 aatgatgtca agcaccatgg ccagttttat gaatggcttc ctgtgtctaa tgaccctgac
 360
 aacccatgtt cactcaagtg ccaagccaaa ggaacaaccc tggttgttga actagcacct
 420

aaggctcttag atggtacgcg ttgctataca gaatctttgg atatgtgcat cagtgggttta
 480
 tgccaaattg ttggctgcga tcaccagctg ggaagcaccg tcaaggaaga taactgtggg
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 660
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 720
 ggtgaaaaca gtctcagctc cacaggaact ttccttgtgg acaattctag tgtggacttc
 780
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<210> 2650

<211> 428

<212> PRT

<213> Homo sapiens

<400> 2650

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| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Leu | Leu | Phe | Leu | Ala | Phe | Leu | Leu | Leu | Ser | Ser | Arg | Thr | Ala | Arg | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Glu | Asp | Arg | Asp | Gly | Leu | Trp | Asp | Ala | Trp | Gly | Pro | Trp | Ser | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Cys | Ser | Arg | Thr | Cys | Gly | Gly | Gly | Ala | Ser | Tyr | Ser | Leu | Arg | Arg | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ser | Ser | Lys | Ser | Cys | Glu | Gly | Arg | Asn | Ile | Arg | Tyr | Arg | Thr | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ser | Asn | Val | Asp | Cys | Pro | Pro | Glu | Ala | Gly | Asp | Phe | Arg | Ala | Gln | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Cys | Ser | Ala | His | Asn | Asp | Val | Lys | His | His | Gly | Gln | Phe | Tyr | Glu | Trp |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Leu | Pro | Val | Ser | Asn | Asp | Pro | Asp | Asn | Pro | Cys | Ser | Leu | Lys | Cys | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Lys | Gly | Thr | Thr | Leu | Val | Val | Glu | Leu | Ala | Pro | Lys | Val | Leu | Asp |

130 135 140
 Gly Thr Arg Cys Tyr Thr Glu Ser Leu Asp Met Cys Ile Ser Gly Leu
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 165 170 175
 Asp Asn Cys Gly Val Cys Asn Gly Asp Gly Ser Thr Cys Arg Leu Val
 180 185 190
 Arg Gly Gln Tyr Lys Ser Gln Leu Ser Ala Thr Lys Ser Asp Asp Thr
 195 200 205
 Val Val Ala Ile Pro Tyr Gly Ser Arg His Ile Arg Leu Val Leu Lys
 210 215 220
 Gly Pro Asp His Leu Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys
 225 230 235 240
 Gly Glu Asn Ser Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser
 245 250 255
 Ser Val Asp Phe Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala
 260 265 270
 Gly Pro Leu Thr Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser
 275 280 285
 Ala Asp Ser Thr Val Gln Phe Ile Phe Tyr Gln Pro Ile Ile His Arg
 290 295 300
 Trp Arg Glu Thr Asp Phe Phe Pro Cys Ser Ala Thr Cys Gly Gly Gly
 305 310 315 320
 Tyr Gln Leu Thr Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn Arg Val
 325 330 335
 Val Ala Asp Gln Tyr Cys His Tyr Tyr Pro Glu Asn Ile Lys Pro Lys
 340 345 350
 Pro Lys Leu Gln Glu Cys Asn Leu Asp Pro Cys Pro Ala Ser Asp Gly
 355 360 365
 Tyr Lys Gln Ile Met Pro Tyr Asp Leu Tyr His Pro Leu Pro Arg Trp
 370 375 380
 Glu Ala Thr Pro Trp Thr Ala Cys Ser Ser Ser Cys Gly Gly Gly Ile
 385 390 395 400
 Gln Ser Pro Gly Ser Phe Leu Cys Gly Gly Gly His Pro Gly Ala Cys
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<210> 2651

<211> 628

<212> DNA

<213> Homo sapiens

<400> 2651

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<210> 2652

<211> 209

<212> PRT

<213> Homo sapiens

<400> 2652

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Met | Thr | Thr | Glu | Thr | Phe | Val | Lys | Gly | Ile | Lys | Pro | Gly | Leu | Lys | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Asn | Leu | Ile | Phe | Ile | Val | Leu | Glu | Thr | Gly | Arg | Val | Thr | Lys | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Asp | Gly | His | Glu | Val | Arg | Thr | Cys | Lys | Val | Ala | Asp | Lys | Thr | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ile | Asn | Ile | Ser | Val | Trp | Asp | Asp | Val | Gly | Asn | Leu | Ile | Gln | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gly | Asp | Ile | Ile | Arg | Leu | Thr | Lys | Gly | Tyr | Ala | Ser | Val | Phe | Lys | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Cys | Leu | Thr | Leu | Tyr | Thr | Gly | Arg | Gly | Gly | Asp | Leu | Gln | Lys | Ile | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Phe | Cys | Met | Asp | Tyr | Ser | Glu | Val | Pro | Asn | Phe | Ser | Glu | Pro | Asn |
| | | | 115 | | | | | 120 | | | | | 125 | | |
| Pro | Glu | Tyr | Ser | Thr | Gln | Gln | Ala | Pro | Asn | Lys | Ala | Val | Gln | Asn | Asp |
| | | | | | | | 135 | | | | | 140 | | | |
| Ser | Asn | Pro | Ser | Ala | Ser | Gln | Pro | Thr | Thr | Gly | Pro | Ser | Ala | Ala | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | Ala | Ser | Glu | Asn | Gln | Asn | Gly | Asn | Gly | Met | Ser | Ala | Pro | Pro | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Arg | Val | Val | Ala | His | Ile | Pro | Leu | Ile | Leu | Pro | Pro | Thr | His | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Pro | Glu | Ser | Leu | Glu | Ala | Ser | Pro | Thr | Thr | His | Leu | Gln | Ala | Arg |
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Leu

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<211> 2103

<212> DNA

<213> Homo sapiens

<400> 2653

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 1920
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<210> 2654

<211> 70

<212> PRT

<213> Homo sapiens

<400> 2654

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| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Ser | Glu | Val | Asn | Phe | Leu | Arg | Phe | Glu | Cys | Cys | Phe | Lys | Thr | Leu | Ser |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Ser | Asp | Ser | Lys | Cys | Leu | Leu | Leu | Gly | Ala | Val | Ala | His | Ala | Cys | |
| | | 35 | | | | 40 | | | | 45 | | | | | |
| Asn | Pro | Ser | Thr | Leu | Gly | Gly | Arg | Gly | Gly | Arg | Ile | Thr | Arg | Ser | Gly |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Asp | Arg | Asp | Tyr | Pro | Gly | | | | | | | | | | |
| 65 | | | | | 70 | | | | | | | | | | |

<210> 2655

<211> 1752

<212> DNA

<213> Homo sapiens

<400> 2655

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<210> 2656

<211> 493

<212> PRT

<213> Homo sapiens

<400> 2656

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Arg Cys Leu Leu Met Pro Gln Cys Asn Ala Phe Leu Ser Lys Ile Met
          35           40           45
Thr Ser Leu Leu Ser Pro Pro His Arg Arg Pro Thr Leu His Arg Arg
          50           55           60
Pro Thr Leu Pro Tyr Arg Thr Trp Glu Ala Ala Leu Arg Gln Lys Val
          65           70           75           80
Gln Gln Trp Tyr Thr Ala Val Gly Gln Thr Glu Asn Pro Asp Asn Cys
          85           90           95
Ala Glu Lys Leu Gly Leu Cys Pro Gln Phe Phe Lys Val Leu Gly Glu
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Val Asn Pro Leu Glu Glu Lys Pro Phe His Glu Leu Pro Phe Tyr Gln
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Lys Val Trp Leu Leu Lys Gly Leu Cys Asp Phe Val Tyr Asp Thr His
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Lys Glu Val Gln Asp Ala Val Leu Gly Gln Pro Ile His Glu Cys Arg
          145          150          155          160
Ala Val Ile Leu Arg Tyr Asp Tyr Leu Glu Thr Ala Tyr Val His Phe
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Pro Gln Phe Cys Gly Ala Asp Val Arg Ile Tyr Lys Gln Arg Pro Phe
          180          185          190
Gln Ala Pro Glu Phe Pro Ile Pro Pro Ile Lys Ile Gln Arg Val Pro
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Arg Ile Lys Leu Glu Lys Leu Lys Cys Asp Tyr Val Ser Thr Ser Asn
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Gly Glu His Arg Cys Ser Arg Asp Ser Leu Pro Ser Ser Phe Lys Lys
          225          230          235          240
Glu Gln Glu Asn Asn Phe Asp Pro Ala Cys Cys Pro Ala Lys Met Ile
          245          250          255
Leu Asp Asn His Asp Ile Ser Val Glu Met Gly Val Lys Ser Asn Tyr
          260          265          270
Glu Ile Arg Ile Arg Arg Pro Cys Glu Ile Lys Lys Thr Asp Cys Cys
          275          280          285
Lys Glu Asn Leu Glu Lys Pro Arg Ser Pro Gly Glu Val Thr Gly Phe
          290          295          300
Gly Glu Pro Leu Ser Pro Gly Glu Ile Arg Phe Ile Glu Asn Gln Glu
          305          310          315          320
Lys Tyr Gly Glu Ala Ser Arg Ile Lys Ile Glu Pro Ser Pro Leu Lys
          325          330          335
Glu Asn Thr Leu Lys Ser Cys Gln Ile His Val Asn Gly Ser His Ser
          340          345          350
Asp His Pro Glu Ile Asn Cys His Lys Val Val Arg Asp Ile Leu Leu
          355          360          365
Glu Gln Ser Leu Gln Ser His Lys Lys Leu Lys Leu Thr Lys Met Arg
          370          375          380
Ala Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Asp Val Leu Asn
          385          390          395          400
Glu Asn Leu Gln Arg Lys Arg Glu Gly Leu His Ser Leu Ala Phe Lys
          405          410          415
Ser Tyr Lys Pro Glu Ile Gln Asn Lys Leu Leu Ile Ile Lys Lys Lys

```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 420 | | 425 | | 430 | | | | | | | | | | |
| Ala | Lys | His | Lys | Lys | His | Lys | Ser | Gly | Lys | Lys | Ser | Val | Ser | Lys | Lys |
| | 435 | | 440 | | 445 | | | | | | | | | | |
| Ala | Ile | Thr | Lys | Lys | Arg | Lys | Thr | Val | Ile | Lys | Ser | Pro | Thr | Val | Pro |
| | 450 | | 455 | | 460 | | | | | | | | | | |
| Glu | Phe | Gln | Leu | Ile | Cys | Thr | Asn | Leu | Asp | Glu | Leu | Arg | Glu | Leu | Ile |
| 465 | | | 470 | | 475 | | | | 480 | | | | | | |
| Thr | Lys | Ile | Glu | Asn | Glu | Leu | Lys | Asp | Leu | Glu | Lys | Lys | | | |
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<210> 2657

<211> 972

<212> DNA

<213> Homo sapiens

<400> 2657

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<210> 2658

<211> 76

<212> PRT

<213> Homo sapiens

<400> 2658

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 Leu Trp Gly Gly Ala Gly Glu Arg Gly Cys Gln Ala Trp Ala Ala Ala
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 Ala Leu Pro Gly Pro Ala Pro Ser Met His Gly Trp
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<210> 2659

<211> 691

<212> DNA

<213> Homo sapiens

<400> 2659

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<210> 2660

<211> 120

<212> PRT

<213> Homo sapiens

<400> 2660

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| | | | | | |
|-------------------------------------|---------------------------------|-----|----|--|----|
| | 20 | | 25 | | 30 |
| Gln Arg Val Glu Ala Leu Pro Arg | Pro Val Pro Gln Asn Leu Pro Gln | | | | |
| 35 | 40 | 45 | | | |
| Pro Gln Met Pro Pro Tyr Ala Phe | Ala His Pro Pro Phe Pro Leu Pro | | | | |
| 50 | 55 | 60 | | | |
| Pro Val Arg Pro Val Phe Asn Asn Phe | Pro Leu Asn Met Gly Pro Ile | | | | |
| 65 | 70 | 75 | 80 | | |
| Pro Ala Pro Tyr Val Pro Pro Leu Pro | Asn Val Arg Val Asn Tyr Asp | | | | |
| 85 | 90 | 95 | | | |
| Phe Gly Pro Ile His Met Pro Leu Glu | His Asn Leu Pro Met His Phe | | | | |
| 100 | 105 | 110 | | | |
| Gly Pro Gln Pro Arg His Arg Phe | | | | | |
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<210> 2661

<211> 1395

<212> DNA

<213> Homo sapiens

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 1020

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<210> 2662

<211> 415

<212> PRT

<213> Homo sapiens

<400> 2662

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Val | Met | Lys | Cys | Ile | Gly | Lys | Asp | Ala | Pro | Ile | Ala | Leu | Lys | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Leu | Glu | Met | Lys | Ala | Leu | Arg | Glu | Leu | Asp | Arg | Phe | Ser | Val | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Asn | Ser | Gln | His | Met | Phe | Glu | Val | Leu | Ala | Ala | Met | Asn | His | Arg | Ser |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Leu | Ile | Leu | Leu | Asp | Glu | Cys | Ser | Lys | Val | Val | Leu | Asp | Asn | Ile | His |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Gly | Cys | Pro | Leu | Arg | Ile | Met | Ile | Asn | Ile | Leu | Gln | Ser | Cys | Lys | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Gln | Tyr | His | Asn | Leu | Asp | Leu | Phe | Lys | Gly | Leu | Ala | Asp | Tyr | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Thr | Phe | Asp | Ile | Trp | Lys | Phe | Arg | Lys | Val | Leu | Phe | Ile | Leu |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Ile | Leu | Phe | Glu | Asn | Leu | Gly | Phe | Arg | Pro | Val | Gly | Leu | Met | Asp | Leu |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Phe | Met | Lys | Arg | Ile | Val | Glu | Asp | Pro | Glu | Ser | Leu | Asn | Met | Lys | Asn |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Ile | Leu | Ser | Ile | Leu | His | Thr | Tyr | Ser | Ser | Leu | Asn | His | Val | Tyr | Lys |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Cys | Gln | Asn | Lys | Glu | Gln | Phe | Val | Glu | Val | Met | Ala | Ser | Ala | Leu | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Tyr | Leu | His | Thr | Ile | Ser | Ser | Glu | Asn | Leu | Leu | Asp | Ala | Val | Tyr |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Ser | Phe | Cys | Leu | Met | Asn | Tyr | Phe | Pro | Leu | Ala | Pro | Phe | Asn | Gln | Leu |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Leu | Gln | Lys | Asp | Ile | Ile | Ser | Glu | Leu | Leu | Thr | Ser | Asp | Asp | Met | Lys |
| 225 | | | | 230 | | | | | | 235 | | | | 240 | |
| Asn | Ala | Tyr | Lys | Leu | His | Thr | Leu | Asp | Thr | Cys | Leu | Lys | Leu | Asp | Asp |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Thr | Val | Tyr | Leu | Arg | Asp | Ile | Ala | Leu | Ser | Leu | Pro | Gln | Leu | Pro | Arg |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 260 | | 265 | | 270 | | | | | | | | | | |
| Glu | Leu | Pro | Ser | Ser | His | Thr | Asn | Ala | Lys | Val | Ala | Glu | Val | Leu | Ser |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Ser | Leu | Leu | Gly | Gly | Glu | Gly | His | Phe | Ser | Lys | Asp | Val | His | Leu | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Asn | Tyr | His | Ile | Asp | Phe | Glu | Ile | Arg | Met | Asp | Thr | Asn | Arg | Asn |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Gln | Val | Leu | Pro | Leu | Ser | Asp | Val | Asp | Thr | Thr | Ser | Ala | Thr | Asp | Ile |
| | | | 325 | | | | | 330 | | | | | 335 | | |
| Gln | Arg | Val | Ala | Val | Leu | Cys | Val | Ser | Arg | Ser | Ala | Tyr | Cys | Leu | Gly |
| | 340 | | | | | | 345 | | | | 350 | | | | |
| Ser | Ser | His | Pro | Arg | Gly | Phe | Leu | Ala | Met | Lys | Met | Arg | His | Leu | Asn |
| | 355 | | | | | 360 | | | | | 365 | | | | |
| Ala | Met | Gly | Phe | His | Val | Ile | Leu | Val | Asn | Asn | Trp | Glu | Met | Asp | Lys |
| | 370 | | | | 375 | | | | | 380 | | | | | |
| Leu | Glu | Met | Glu | Asp | Ala | Val | Thr | Phe | Leu | Lys | Thr | Lys | Ile | Tyr | Ser |
| 385 | | | | 390 | | | | | 395 | | | | | 400 | |
| Val | Glu | Ala | Leu | Pro | Val | Ala | Ala | Val | Asn | Val | Gln | Ser | Thr | Gln | |
| | | | 405 | | | | | 410 | | | | | 415 | | |

<210> 2663

<211> 1024

<212> DNA

<213> Homo sapiens

<400> 2663

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<210> 2664
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 <212> PRT
 <213> Homo sapiens

<400> 2664
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 35 40 45
 Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Val Thr Ile Leu Leu Leu Asn
 50 55 60
 Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
 65 70 75 80
 Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser Leu Gly Leu Ala Leu
 85 90 95
 Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser Phe Phe Ala Leu Gly
 100 105 110
 Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly Ile Leu Lys Glu Ala
 115 120 125
 Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp Asn Pro Met Tyr Trp
 130 135 140
 Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
 145 150 155 160
 Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
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 Ser Gly Ser His Lys Arg Ser
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 <211> 720
 <212> DNA
 <213> Homo sapiens

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<210> 2666

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2666

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| 1 | | | 5 | | | | | | 10 | | | | 15 | | |
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| His | Ile | Met | Ala | Leu | Thr | Lys | Met | Ser | Ser | Pro | Ser | Pro | Pro | Val | Leu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
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<400> 2668

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| Asn | Phe | Lys | Asp | Ala | Arg | Asp | Ala | Glu | Gln | Leu | Ser | Lys | Asn | Lys | Gly |
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| Asn | Pro | Phe | Ser | Val | Cys | Pro | Arg | Trp | Val | Pro | Gly | Leu | Cys | Trp | Arg |
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| Thr | Arg | His | Phe | Lys | Glu | Ser | Ile | Lys | Phe | Ile | His | Glu | Cys | Arg | Leu |
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| Asp | Glu | Gln | Ser | Val | Glu | Ser | Ile | Ala | Glu | Val | Phe | Arg | Cys | Phe | Ile |
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| Cys | Ser | Leu | Thr | Lys | His | Glu | Glu | Asn | Glu | Lys | Asp | Lys | Cys | Glu | Asn |
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| His | His | Glu | Lys | Leu | Ser | Val | Phe | Cys | Trp | Thr | Cys | Lys | Lys | Cys | Ile |
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| Cys | His | Gln | Cys | Ala | Leu | Trp | Gly | Gly | Met | His | Gly | Gly | His | Thr | Phe |
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| Gln | Glu | Val | Glu | Arg | Asn | Val | Glu | Ala | Val | Arg | Asn | Ala | Lys | Asp | Glu |
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| Glu | His | Gln | Leu | Arg | Ser | Cys | Ser | Lys | Ser | Glu | Leu | Ile | Ser | Lys | Ser |

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| | | | | 275 | | | | 280 | | | | 285 | | | | | | | | | | | | | | | | | | |
| Pro | Ser | Tyr | Asp | Ser | Ala | Thr | Phe | Val | Leu | Glu | Asn | Phe | Ser | Thr | Leu | | | | | | | | | | | | | | | |
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| His Leu Glu Gly Leu Gln Met Thr Asp Leu Glu Asn Asn Ser Glu Thr | | |
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| Glu Gln Glu Glu His Thr Ser Val Gly Gly Phe His Asp Ser Phe Met | | |
| 930 | 935 | 940 |
| Val Met Thr Gln Pro Pro Asp Glu Asp Thr His Ser Ser Phe Pro Asp | | |
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<213> Homo sapiens

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| Arg | Arg | Glu | Ile | Glu | Asp | Lys | Leu | Lys | Gln | Glu | Glu | Glu | Thr | Leu | Ser |
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| Phe | Ile | Arg | Asp | Ser | Leu | Glu | Lys | Ser | Asp | Gln | Leu | Thr | Lys | Asn | Met |
| | | 35 | | | | | 40 | | | | | | 45 | | |
| Val | Ser | Ile | Leu | Ser | Ser | Phe | Glu | Ser | Arg | Leu | Met | Lys | Leu | Glu | Asn |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ser | Ile | Ile | Pro | Val | His | Lys | Gln | Thr | Glu | Asn | Leu | Gln | Arg | Leu | Gln |
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| Glu | Asn | Val | Glu | Lys | Thr | Leu | Ser | Cys | Leu | Asp | His | Val | Ile | Ser | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | His | Val | Ala | Ser | Asp | Thr | Glu | Lys | Ile | Ile | Arg | Glu | Gly | Pro | Thr |
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| Thr | Leu | Glu | His | Leu | Pro | Glu | Ser | Val | Leu | Gln | Asp | Val | Ile | Arg | Ile |
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| Tyr | Tyr | Gln | Ile | Arg | Ser | Ser | Gln | Leu | Asp | Arg | Ser | Ile | Lys | Gly | Leu |
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| Lys | Glu | His | Phe | His | Lys | Ser | Ser | Ser | Ser | Ser | Gly | Val | Pro | Tyr | Ser |
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 Trp Val Val Asp Asn Phe Leu Met Arg Lys Gly Lys Thr Lys Ala Lys
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| Phe | Glu | Gly | Leu | Ser | Pro | Pro | Ala | Ser | Met | Ala | Pro | Gln | Asp | Cys | Leu | | |
| 65 | | | | | | 70 | | | | | | 75 | | | | | |
| Ala | Gln | Leu | Arg | Leu | Ala | Gln | Glu | Ala | Ala | Gln | Val | Ser | Ser | Gly | Thr | | |
| 85 | | | | | | 90 | | | | | | 95 | | | | | |
| Arg | Val | Arg | Met | Gln | Gly | Val | Gly | Pro | Ser | Trp | Gly | Gln | Ser | Pro | Gly | | |
| 100 | | | | | | 105 | | | | | | 110 | | | | | |
| Pro | Gly | Met | Arg | Glu | Leu | Ser | His | Leu | Leu | Pro | Cys | Val | Ser | Ala | Pro | | |
| 115 | | | | | | 120 | | | | | | 125 | | | | | |
| Ser | Gln | Leu | Leu | Ser | Cys | Ser | Leu | Gly | Gly | Leu | Val | Arg | Asn | Leu | Gly | | |
| 130 | | | | | | 135 | | | | | | 140 | | | | | |
| Thr | Arg | Ala | Ser | Ala | Ser | Arg | Glu | Trp | His | Lys | Ala | Ala | Gly | Thr | Glu | | |
| 145 | | | | | | 150 | | | | | | 155 | | | | | |
| Val | Pro | Gly | Arg | Leu | Leu | Gly | Trp | Trp | Ser | | | | | | | | |
| 165 | | | | | | 170 | | | | | | | | | | | |

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<210> 2679
<211> 560
<212> DNA
<213> Homo sapiens
```

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<400> 2679
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tgtccttcca agtgatcacc ggagtccaga tattttctgtc aagtcagcca accaggaagg
120
ggctgcagac aaagtgcggc aacagggact ccaccaggcc atggagctca tcccacaaga
180
cgctcaccg cacaggaggg ctgacccag ggaaacgtgt caccaggaca cagcacgaag
240
ctcaaaaggg gctagcatgc tctgtgcagc tgccagactc tgccctgaag aatcacaggg
300
cactctagtg agcgctgcag cagccagcag gccctggatg gccaggtgtg cagtggggag
360
gcacaggggg tgcaccagga cgcagccaga cctgggccag ttcgcgccga ctcttctcca
420
ttccagaggt ccaggaagca cctgtcaatg tggaagtcat aatgctcagg ccaaataaccg
480
agatcaacta actattcagg ttgaaccaga ggccctgggag ggggcatcca actgccacc
540
cgtcagactg agggacgcgt
560

```

```
<210> 2680
<211> 133
<212> PRT
<213> Homo sapiens
```

```

<400> 2680
Met Glu Leu Ile Pro Gln Asp Ala Ser Pro His Arg Arg Ala Asp Pro
 1             5             10             15
Arg Glu Thr Cys His Gln Asp Thr Ala Arg Ser Ser Lys Gly Ala Ser

```

20 25 30
 Met Leu Cys Ala Ala Ala Arg Leu Cys Pro Glu Glu Ser Gln Gly Thr
 35 40 45
 Leu Val Ser Ala Ala Ala Ala Ser Arg Pro Trp Met Ala Arg Cys Ala
 50 55 60
 Val Gly Arg His Arg Gly Cys Thr Arg Thr Gln Pro Asp Leu Gly Gln
 65 70 75 80
 Phe Ala Pro Thr Leu Leu His Ser Arg Gly Pro Gly Ser Thr Cys Gln
 85 90 95
 Cys Gly Ser Gln Asn Ala Gln Ala Lys Tyr Arg Asp Gln Leu Thr Ile
 100 105 110
 Gln Val Glu Pro Glu Ala Trp Ala Gly Ala Ser Asn Cys Pro Pro Val
 115 120 125
 Arg Leu Arg Asp Ala
 130

<210> 2681
 <211> 585
 <212> DNA
 <213> Homo sapiens

<400> 2681
 gattctctag tagccctaatt tctacccatc tggctactaa ttcaaacttt cttccttcac
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 atctgtttgt ggacttctcc aatataacta gtatgcctgg gctcattctg cttcttctct
 120
 cctggaatag tttatttcat gaccatgtgc agaggggggtg atggggcaag cctcacaagc
 180
 cccggaggtc tgtggctgag gtgtaccttg gctttgttgc ctggaactgc tctgactctg
 240
 ctcttctctc tttcttgggc tgtgtcacta cagctctgac tcctttccac cttggagttt
 300
 agcttccctg ccaggaaagc taaggagtag gagttgttct tggaaacaaa tgccgagcga
 360
 tgtgtctgtg tcattctggc tcgagaaggt tcttcattct ctgaatctga gagacgtgca
 420
 ggacaacgtt ccagatttgt tttcagtact aatggttcat ctcttttttt ctgttcatcc
 480
 attttccttt tccctgtttc tgtatctctt ggtaacagct tgtggatttg atcttcagag
 540
 ggtttttctt cttgtaactt ttcttctctc agctttctca agctt
 585

<210> 2682
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 2682
 Met Asp Glu Gln Lys Lys Arg Asp Glu Pro Leu Val Leu Lys Thr Asn
 1 5 10 15
 Leu Glu Arg Cys Pro Ala Arg Leu Ser Asp Ser Glu Asn Glu Glu Pro
 20 25 30
 Ser Arg Gly Gln Met Thr Gln Thr His Arg Ser Ala Phe Val Ser Lys


```

          35          40          45
Asn Asn Ser Tyr Ser Leu Ala Phe Leu Ala Gly Lys Leu Asn Ser Lys
  50          55          60
Val Glu Arg Ser Gln Ser Cys Ser Asp Thr Ala Gln Glu Arg Ala Lys
  65          70          75          80
Ser Arg Val Arg Ala Val Pro Gly Asn Lys Ala Lys Val His Leu Ser
          85          90          95
His Arg Pro Pro Gly Leu Val Arg Leu Ala Pro Ser Pro Pro Leu His
          100          105          110
Met Val Met Lys
          115

```

<210> 2683

<211> 498

<212> DNA

<213> Homo sapiens

<400> 2683

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naccggttac actgactcca aaactctcct tggaggccta ggtgaaacct catggccaac
  60
atcacctgga tggccaacca cactggaagg ttggatttca tcctcatggg actcttcaga
  120
cgatccaaac atccagctct acttagtgtg gtcattcttg tggttttcct gatggcggtg
  180
tctgaaaatg ctgtcctgat ccttctgata cactgtgaca cctacctcca ccccccatg
  240
tactttttca tcagtcaatt gtctctcatg gacatggcgt acatttctgt cactgtgccc
  300
aagatgctcc tggaccaggt catgggtgtg aataagatct cagcccctga gtgtgggatg
  360
cagatgttcc tctatctgac actagcaggt tcggaatttt tccttctagc caccatggcc
  420
tatgaccgct acgtggccat ctgccatcct ctccggtacc ctgtcctcat gaaccatagg
  480
gtctgtcttt tcctggca
  498

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<210> 2684

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2684

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Met Ala Asn Ile Thr Trp Met Ala Asn His Thr Gly Arg Leu Asp Phe
  1          5          10          15
Ile Leu Met Gly Leu Phe Arg Arg Ser Lys His Pro Ala Leu Leu Ser
          20          25          30
Val Val Ile Phe Val Val Phe Leu Met Ala Leu Ser Glu Asn Ala Val
          35          40          45
Leu Ile Leu Leu Ile His Cys Asp Thr Tyr Leu His Thr Pro Met Tyr
          50          55          60
Phe Phe Ile Ser Gln Leu Ser Leu Met Asp Met Ala Tyr Ile Ser Val
  65          70          75          80
Thr Val Pro Lys Met Leu Leu Asp Gln Val Met Gly Val Asn Lys Ile

```

85 90 95
 Ser Ala Pro Glu Cys Gly Met Gln Met Phe Leu Tyr Leu Thr Leu Ala
 100 105 110
 Gly Ser Glu Phe Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val
 115 120 125
 Ala Ile Cys His Pro Leu Arg Tyr Pro Val Leu Met Asn His Arg Val
 130 135 140
 Cys Leu Phe Leu Ala
 145

<210> 2685

<211> 391

<212> DNA

<213> Homo sapiens

<400> 2685

ngccggctgc acacgctgcc acctgggctg cctcgaaatg tccatgtgct gaaggtcaag
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 cgcaatgagc tggctgccct ggcacgaggg gcgctggcgg gcatggctca gcttcgggaa
 120
 ctctacctca caggcaaccg actgcgaagc cgggcccttg gccccctgct ctgggtggac
 180
 ctgcgccatc tgcagttgct ggacatcgcc gggaatcagc tcacagagat cccggagggg
 240
 ctccccccat cgctggagta tctgtacctg cagaataaca agattagcgc tgttcctgcc
 300
 agcgcctttg actctactcc caacctcaag gggatctttc tcaggttcaa caagctggct
 360
 gtgggctccg tagtagaaag cgccttcggg a
 391

<210> 2686

<211> 130

<212> PRT

<213> Homo sapiens

<400> 2686

Xaa Arg Leu His Thr Leu Pro Pro Gly Leu Pro Arg Asn Val His Val
 1 5 10 15
 Leu Lys Val Lys Arg Asn Glu Leu Ala Ala Leu Ala Arg Gly Ala Leu
 20 25 30
 Ala Gly Met Ala Gln Leu Arg Glu Leu Tyr Leu Thr Gly Asn Arg Leu
 35 40 45
 Arg Ser Arg Ala Leu Gly Pro Arg Ala Trp Val Asp Leu Ala His Leu
 50 55 60
 Gln Leu Leu Asp Ile Ala Gly Asn Gln Leu Thr Glu Ile Pro Glu Gly
 65 70 75 80
 Leu Pro Pro Ser Leu Glu Tyr Leu Tyr Leu Gln Asn Asn Lys Ile Ser
 85 90 95
 Ala Val Pro Ala Ser Ala Phe Asp Ser Thr Pro Asn Leu Lys Gly Ile
 100 105 110
 Phe Leu Arg Phe Asn Lys Leu Ala Val Gly Ser Val Val Glu Ser Ala
 115 120 125
 Phe Arg

130

<210> 2687
 <211> 399
 <212> DNA
 <213> Homo sapiens

<400> 2687
 nagtgcaaga aatgtttaat acaagagatt gaaccctacc aaaatgggag gtttagcctc
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 caggaatggg agtgcaataa atctctaata caagagattg agcctcacca acctccagga
 120
 tgggaaatga caggtaagac agggactaca aaagaccaag cagacaataa aattccccct
 180
 gacagtccgc taggccttat gttaagatac cggaaagata atgaaaggac caaacacaag
 240
 aaaagacagc aaatgataaa atattgctgg tttatttgga ctaaggaacc catcctgaaa
 300
 cctttgggtct tttggccaca gttaggggtg agcgggggact ggatatgcca actcctaate
 360
 cagtatgtaa aggataaaaag tccagtttct caagaggag
 399

<210> 2688
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 2688
 Met Thr Gly Lys Thr Gly Thr Thr Lys Asp Gln Ala Asp Asn Lys Ile
 1 5 10 15
 Pro Pro Asp Ser Pro Leu Gly Leu Met Leu Arg Tyr Arg Lys Asp Asn
 20 25 30
 Glu Arg Thr Lys His Lys Lys Arg Gln Gln Met Ile Lys Tyr Cys Trp
 35 40 45
 Phe Ile Trp Thr Lys Glu Pro Ile Leu Lys Pro Leu Val Phe Trp Pro
 50 55 60
 Gln Leu Gly Leu Ser Gly Asp Trp Ile Cys Gln Leu Leu Ile Gln Tyr
 65 70 75 80
 Val Lys Asp Lys Ser Pro Val Ser Gln Glu Glu
 85 90

<210> 2689
 <211> 560
 <212> DNA
 <213> Homo sapiens

<400> 2689
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 gccctgtttc ctcagaaaag atacaaaaat gtgggtctca ccaagttgcc caggctgggc
 120
 tcaaactcct ggctcaaga aatcctcctg gtccagcctc acaaagctcc gagattacag
 180

ttgcatgtct gtgacaagct tggaggccga gttgcaagct aagatccaag agagccatcc
 240
 tgaattgcga cgcgtgtact tcaataaggg attgtaaagc agggaggaaa cctctgcagc
 300
 tcattctgcc actgcaaagc tgggtgtagcc atgctggtga gaaaaatcct gttcaacctg
 360
 gggttggtata tcgtctttga aaaacaatga ctataaaagc tacaggaaag gtatttcagg
 420
 acgtttattg aaggcattgg tggagctctc tgtatgtgtt ttgctctgca gggaaactcaa
 480
 agttggcatt cccgtcacgg atgagaatgg gaaccgcttg ggggagtcgg cgaacgctgc
 540
 gaaacaagcc atcacgccag
 560

<210> 2690

<211> 73

<212> PRT

<213> Homo sapiens

<400> 2690

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Ile | Gln | Val | Gly | Leu | Val | Gly | Phe | Cys | Leu | Val | Phe | Ala | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Pro | Leu | Cys | Cys | Ala | Leu | Phe | Pro | Gln | Lys | Arg | Tyr | Lys | Asn | Val | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Thr | Lys | Leu | Pro | Arg | Leu | Val | Ser | Asn | Ser | Trp | Pro | Gln | Glu | Ile |
| | | 35 | | | | | 40 | | | | | | 45 | | |
| Leu | Leu | Val | Gln | Pro | His | Lys | Ala | Pro | Arg | Leu | Gln | Leu | His | Val | Cys |
| | | 50 | | | | 55 | | | | | | 60 | | | |
| Asp | Lys | Leu | Gly | Gly | Arg | Val | Ala | Ser | | | | | | | |
| 65 | | | | | | 70 | | | | | | | | | |

<210> 2691

<211> 532

<212> DNA

<213> Homo sapiens

<400> 2691

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 caggggggtgc tgaaggccct cgactacatc caccacatgg gatatgtaca caggagtgtc
 120
 aaagccagcc acatcctgat ctctgtggat gggaaggctt acctgtctgg tttgcgcagc
 180
 aacctcagca tgataagcca tgggcagcgg cagcgagtgg tccacgattt tcccaagtac
 240
 agtgtcaagg ttctgccgtg gctcagcccc gaggtcctcc agcagaatct ccagggttat
 300
 gatgccaaagt ctgacatcta cagtgtggga atcacagcct gtgaactggc caacggccat
 360
 gtcccccttta aggatatgcc tgccacccag atgctgctag agaaactgaa cggcacagtg
 420
 ccctgcctgt tggataccag caccatcccc gctgaggagc tgaccatgag cccttcgcgc
 480

tcagtggcca actctggcct gagtgcacgc ctgaccacca gcacaccccg gg
532

<210> 2692

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2692

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Ile | Cys | Thr | His | Phe | Met | Asp | Gly | Met | Asn | Glu | Leu | Ala | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Tyr | Ile | Leu | Gln | Gly | Val | Leu | Lys | Ala | Leu | Asp | Tyr | Ile | His | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Gly | Tyr | Val | His | Arg | Ser | Val | Lys | Ala | Ser | His | Ile | Leu | Ile | Ser |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Val | Asp | Gly | Lys | Val | Tyr | Leu | Ser | Gly | Leu | Arg | Ser | Asn | Leu | Ser | Met |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ile | Ser | His | Gly | Gln | Arg | Gln | Arg | Val | Val | His | Asp | Phe | Pro | Lys | Tyr |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Val | Lys | Val | Leu | Pro | Trp | Leu | Ser | Pro | Glu | Val | Leu | Gln | Gln | Asn |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Gln | Gly | Tyr | Asp | Ala | Lys | Ser | Asp | Ile | Tyr | Ser | Val | Gly | Ile | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Cys | Glu | Leu | Ala | Asn | Gly | His | Val | Pro | Phe | Lys | Asp | Met | Pro | Ala |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Thr | Gln | Met | Leu | Leu | Glu | Lys | Leu | Asn | Gly | Thr | Val | Pro | Cys | Leu | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Thr | Ser | Thr | Ile | Pro | Ala | Glu | Glu | Leu | Thr | Met | Ser | Pro | Ser | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Ser | Val | Ala | Asn | Ser | Gly | Leu | Ser | Asp | Ser | Leu | Thr | Thr | Ser | Thr | Pro |
| | | | 165 | | | | | 170 | | | | | | 175 | |

Arg

<210> 2693

<211> 798

<212> DNA

<213> Homo sapiens

<400> 2693

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120
aagctgcagg agttccctgt ggccatccgg accctgggca gactgcagga actggggttc
180
cataacaaca acatcaaggc catcccagaa aaggccttca tggggaaccc tctgctacag
240
acgatacact tttatgataa cccaatccag tttgtgggaa gatcggcatt ccagtacctg
300
cctaaactcc acacactatc tctgaatggt gccatggaca tccaggagtt tccagatctc
360
aaaggcacca ccagcctgga gacctgacc ctgaccgcg caggcatccg gctgctccca
420

tcggggatgt gccaacagct gccagggctc cgagtcctgg aactgtctca caatcaaatt
 480
 gaggagctgc ccagcctgca cagggtgtcag aaattggagg aaatcggcct ccaacacaac
 540
 cgcattctggg aaattggagc tgacaccttc agccagctga gtcacctgca agccctggat
 600
 ttaaggtgga acgccatccg gtccatccac cccgaggcct tctccaccct gcactccctg
 660
 gtcaagctgg acctgacaga caaccagctg accacactgc ccctggctgg acttgggggc
 720
 ttgatgcata tgaagctcaa aggggaacctt gctctctccc aggccttctc caaggacagt
 780
 ttcccaaaac tgaggatc
 798

<210> 2694

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2694

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Gln | Asn | Leu | Thr | Ser | Leu | Val | Val | Leu | His | Leu | His | Asn | Asn |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Arg | Ile | Gln | His | Leu | Gly | Thr | His | Ser | Phe | Glu | Gly | Leu | His | Asn | Leu |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Glu | Thr | Leu | Asp | Leu | Asn | Tyr | Asn | Lys | Leu | Gln | Glu | Phe | Pro | Val | Ala |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Ile | Arg | Thr | Leu | Gly | Arg | Leu | Gln | Glu | Leu | Gly | Phe | His | Asn | Asn | Asn |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ile | Lys | Ala | Ile | Pro | Glu | Lys | Ala | Phe | Met | Gly | Asn | Pro | Leu | Leu | Gln |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Thr | Ile | His | Phe | Tyr | Asp | Asn | Pro | Ile | Gln | Phe | Val | Gly | Arg | Ser | Ala |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Phe | Gln | Tyr | Leu | Pro | Lys | Leu | His | Thr | Leu | Ser | Leu | Asn | Gly | Ala | Met |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Asp | Ile | Gln | Glu | Phe | Pro | Asp | Leu | Lys | Gly | Thr | Thr | Ser | Leu | Glu | Ile |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Leu | Thr | Leu | Thr | Arg | Ala | Gly | Ile | Arg | Leu | Leu | Pro | Ser | Gly | Met | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Gln | Leu | Pro | Arg | Leu | Arg | Val | Leu | Glu | Leu | Ser | His | Asn | Gln | Ile |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Glu | Glu | Leu | Pro | Ser | Leu | His | Arg | Cys | Gln | Lys | Leu | Glu | Glu | Ile | Gly |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Gln | His | Asn | Arg | Ile | Trp | Glu | Ile | Gly | Ala | Asp | Thr | Phe | Ser | Gln |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Leu | Ser | Ser | Leu | Gln | Ala | Leu | Asp | Leu | Arg | Trp | Asn | Ala | Ile | Arg | Ser |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ile | His | Pro | Glu | Ala | Phe | Ser | Thr | Leu | His | Ser | Leu | Val | Lys | Leu | Asp |
| | 210 | | | | | 215 | | | | | | 220 | | | |
| Leu | Thr | Asp | Asn | Gln | Leu | Thr | Thr | Leu | Pro | Leu | Ala | Gly | Leu | Gly | Gly |
| 225 | | | | 230 | | | | | | 235 | | | | 240 | |
| Leu | Met | His | Leu | Lys | Leu | Lys | Gly | Asn | Leu | Ala | Leu | Ser | Gln | Ala | Phe |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Ser | Lys | Asp | Ser | Phe | Pro | Lys | Leu | Arg | Ile | | | | | | |

260

265

<210> 2695

<211> 2265

<212> DNA

<213> Homo sapiens

<400> 2695

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gagcagccca cccatgccgt gtgtgtgctg ggcaccttga ctcagettga catctgcagc
120
tctgccccctg aggactgcac gtccttcagc atcaacgcct ccccaggggt ggtcgtggat
180
attgccaca gccctccagc caagaagaaa tccacaggtt cctccacatg gccctggac
240
cctggggtag aggtgaccct gacgatgaaa gcggccagtg gtagcacagg cgaccagaag
300
gttcagattt catactacgg acccaagact ccaccagtca aagctctact ctacctcacc
360
gcggtggaaa tctccctgtg cgcagacatc acccgaccg gcaaagtga gccaaccaga
420
gctgtgaaag atcagaggac ctggacctgg ggcccttggt gacaggggtgc catcctgctg
480
gtgaactgtg acagagacaa tctcgaatct tctgccatgg actgcgagga tgatgaagtg
540
cttgacagcg aagacctgca ggacatgtcg ctgatgacct tgagcacgaa gacccccaa
600
gactttctca caaaccatac actggtgctc cacgtggcca ggtctgagat ggacaaagt
660
agggtgtttc aggccacacg gggcaaaactg tcctccaagt gcagcgtagt cttgggtccc
720
aagtggccct ctactacct gatggtcccc ggtggaaagc acaacatgga cttctacgtg
780
gaggccctcg ctttcccga caccgacttc cgggggtca ttaccctcac catctccctg
840
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900
cgcgtggcgc cctggatcat gacccccaac acccagcccc cgcaggaggt gtacgcgtgc
960
agtatttttg aaaatgagga cttcctgaag tcagtgacta ctctggccat gaaagccaag
1020
tgcaagctga ccatctgccc tgaggaggag aacatggatg accagtggat gcaggatgaa
1080
atggagatcg gctacatcca agccccacac aaaacgctgc cgtggtctt cgactctcca
1140
aggaacagag gcctgaagga gtttcccatc aaacgagtga tgggtccaga ttttggctat
1200
gtaactcgag ggccccaaac agggggtatc agtggactgg actccttttg gaacctggaa
1260
gtgagcccc cagtcacagt caggggcaag gaataccgc tgggcaggat tctcttcggg
1320
gacagctgtt atcccagcaa tgacagccgg cagatgcacc aggcctgca ggacttcctc
1380

agtgcaccagc aggtgcaggc cctgtgaag ctctattctg actggctgtc cgtggggccac
 1440
 gtggacgagt tcctgagctt tgtgccagca cccgacagga agggcttccg gctgctcctg
 1500
 gccagcccca ggtcctgcta caaactgttc caggagcagc agaatgaggg ccacggggag
 1560
 gccctgctgt tcgaagggat caagaaaaaa aaacagcaga aaataaagaa cattctgtca
 1620
 aacaagacat tgagagaaca taattcattt gtggagagat gcatcgactg gaaccgagag
 1680
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<210> 2696

<211> 663

<212> PRT

<213> Homo sapiens

<400> 2696

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Val | Cys | Val | Leu | Gly | Thr | Leu | Thr | Gln | Leu | Asp | Ile | Cys | Ser | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Pro | Glu | Asp | Cys | Thr | Ser | Phe | Ser | Ile | Asn | Ala | Ser | Pro | Gly | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Val | Asp | Ile | Ala | His | Ser | Pro | Pro | Ala | Lys | Lys | Lys | Ser | Thr | Gly |
| | | 50 | | | | 55 | | | | 60 | | | | | |
| Ser | Ser | Thr | Trp | Pro | Leu | Asp | Pro | Gly | Val | Glu | Val | Thr | Leu | Thr | Met |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Lys | Ala | Ala | Ser | Gly | Ser | Thr | Gly | Asp | Gln | Lys | Val | Gln | Ile | Ser | Tyr |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Tyr | Gly | Pro | Lys | Thr | Pro | Pro | Val | Lys | Ala | Leu | Leu | Tyr | Leu | Thr | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Glu | Ile | Ser | Leu | Cys | Ala | Asp | Ile | Thr | Arg | Thr | Gly | Lys | Val | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Thr | Arg | Ala | Val | Lys | Asp | Gln | Arg | Thr | Trp | Thr | Trp | Gly | Pro | Cys |

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Gly Gln Gly Ala Ile Leu Leu Val Asn Cys Asp Arg Asp Asn Leu Glu | | |
| 145 | 150 | 155 |
| Ser Ser Ala Met Asp Cys Glu Asp Asp Glu Val Leu Asp Ser Glu Asp | | 160 |
| | 165 | 170 |
| Leu Gln Asp Met Ser Leu Met Thr Leu Ser Thr Lys Thr Pro Lys Asp | | 175 |
| | 180 | 185 |
| Phe Phe Thr Asn His Thr Leu Val Leu His Val Ala Arg Ser Glu Met | | 190 |
| | 195 | 200 |
| Asp Lys Val Arg Val Phe Gln Ala Thr Arg Gly Lys Leu Ser Ser Lys | | 205 |
| | 210 | 215 |
| Cys Ser Val Val Leu Gly Pro Lys Trp Pro Ser His Tyr Leu Met Val | | 220 |
| 225 | 230 | 235 |
| Pro Gly Gly Lys His Asn Met Asp Phe Tyr Val Glu Ala Leu Ala Phe | | 240 |
| | 245 | 250 |
| Pro Asp Thr Asp Phe Pro Gly Leu Ile Thr Leu Thr Ile Ser Leu Leu | | 255 |
| | 260 | 265 |
| Asp Thr Ser Asn Leu Glu Leu Pro Glu Ala Val Val Phe Gln Asp Ser | | 270 |
| | 275 | 280 |
| Val Val Phe Arg Val Ala Pro Trp Ile Met Thr Pro Asn Thr Gln Pro | | 285 |
| | 290 | 295 |
| Pro Gln Glu Val Tyr Ala Cys Ser Ile Phe Glu Asn Glu Asp Phe Leu | | 300 |
| 305 | 310 | 315 |
| Lys Ser Val Thr Thr Leu Ala Met Lys Ala Lys Cys Lys Leu Thr Ile | | 320 |
| | 325 | 330 |
| Cys Pro Glu Glu Glu Asn Met Asp Asp Gln Trp Met Gln Asp Glu Met | | 335 |
| | 340 | 345 |
| Glu Ile Gly Tyr Ile Gln Ala Pro His Lys Thr Leu Pro Val Val Phe | | 350 |
| | 355 | 360 |
| Asp Ser Pro Arg Asn Arg Gly Leu Lys Glu Phe Pro Ile Lys Arg Val | | 365 |
| | 370 | 375 |
| Met Gly Pro Asp Phe Gly Tyr Val Thr Arg Gly Pro Gln Thr Gly Gly | | 380 |
| 385 | 390 | 395 |
| Ile Ser Gly Leu Asp Ser Phe Gly Asn Leu Glu Val Ser Pro Pro Val | | 400 |
| | 405 | 410 |
| Thr Val Arg Gly Lys Glu Tyr Pro Leu Gly Arg Ile Leu Phe Gly Asp | | 415 |
| | 420 | 425 |
| Ser Cys Tyr Pro Ser Asn Asp Ser Arg Gln Met His Gln Ala Leu Gln | | 430 |
| | 435 | 440 |
| Asp Phe Leu Ser Ala Gln Gln Val Gln Ala Pro Val Lys Leu Tyr Ser | | 445 |
| | 450 | 455 |
| Asp Trp Leu Ser Val Gly His Val Asp Glu Phe Leu Ser Phe Val Pro | | 460 |
| 465 | 470 | 475 |
| Ala Pro Asp Arg Lys Gly Phe Arg Leu Leu Leu Ala Ser Pro Arg Ser | | 480 |
| | 485 | 490 |
| Cys Tyr Lys Leu Phe Gln Glu Gln Gln Asn Glu Gly His Gly Glu Ala | | 495 |
| | 500 | 505 |
| Leu Leu Phe Glu Gly Ile Lys Lys Lys Lys Gln Gln Lys Ile Lys Asn | | 510 |
| | 515 | 520 |
| Ile Leu Ser Asn Lys Thr Leu Arg Glu His Asn Ser Phe Val Glu Arg | | 525 |
| | 530 | 535 |
| Cys Ile Asp Trp Asn Arg Glu Leu Leu Lys Arg Glu Leu Gly Leu Ala | | 540 |
| 545 | 550 | 555 |
| Glu Ser Asp Ile Ile Asp Ile Pro Gln Leu Phe Lys Leu Lys Glu Phe | | 560 |

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<210> 2698

<211> 332

<212> PRT

<213> Homo sapiens

<400> 2698

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 35 40 45
 Leu Thr Asn Glu Gln Leu Glu Ser Ala Arg Lys Ile Val His Asp Tyr
 50 55 60
 Arg Gln Gly Ile Val Pro Pro Gly Leu Thr Glu Asn Glu Leu Trp Arg
 65 70 75 80
 Ala Lys Tyr Ile Tyr Asp Ser Ala Phe His Pro Asp Thr Gly Glu Lys
 85 90 95
 Met Ile Leu Ile Gly Arg Met Ser Ala Gln Val Pro Met Asn Met Thr
 100 105 110
 Ile Thr Gly Cys Met Met Thr Phe Tyr Arg Thr Thr Pro Ala Val Leu
 115 120 125
 Phe Trp Gln Trp Ile Asn Gln Ser Phe Asn Ala Val Val Asn Tyr Thr
 130 135 140
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 145 150 155 160
 Tyr Val Ser Ala Thr Thr Gly Ala Val Ala Thr Ala Leu Gly Leu Asn
 165 170 175
 Ala Leu Thr Lys His Val Ser Pro Leu Ile Gly Arg Phe Val Pro Phe
 180 185 190
 Ala Ala Val Ala Ala Ala Asn Cys Ile Asn Ile Pro Leu Met Arg Gln
 195 200 205
 Arg Glu Leu Lys Val Gly Ile Pro Val Thr Asp Glu Asn Gly Asn Arg
 210 215 220
 Leu Gly Glu Ser Ala Asn Ala Ala Lys Gln Ala Ile Thr Gln Val Val
 225 230 235 240
 Val Ser Arg Ile Leu Met Ala Ala Pro Gly Met Ala Ile Pro Pro Phe
 245 250 255
 Ile Met Asn Thr Leu Glu Lys Lys Ala Phe Leu Lys Arg Phe Pro Trp
 260 265 270
 Met Ser Ala Pro Ile Gln Val Gly Leu Val Gly Phe Cys Leu Val Phe
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 Ala Thr Pro Leu Cys Cys Ala Leu Phe Pro Gln Lys Ser Ser Met Ser
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<211> 974

<212> DNA

<213> Homo sapiens

<400> 2699

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<210> 2700

<211> 177

<212> PRT

<213> Homo sapiens

<400> 2700

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| Met | Pro | Leu | Pro | Asp | Thr | Met | Phe | Cys | Ala | Gln | Gln | Ile | His | Ile | Pro |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Pro | Glu | Leu | Pro | Asp | Ile | Leu | Lys | Gln | Phe | Thr | Lys | Ala | Ala | Ile | Arg |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Thr | Gln | Pro | Ala | Asp | Val | Leu | Arg | Trp | Ser | Ala | Gly | Tyr | Phe | Ser | Ala |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Leu | Ser | Arg | Gly | Asp | Pro | Leu | Pro | Val | Lys | Asp | Arg | Met | Glu | Met | Pro |
| | 50 | | | | 55 | | | 60 | | | | | | | |
| Val | Ala | Thr | Gln | Lys | Thr | Asp | Thr | Gly | Leu | Thr | Gln | Gly | Leu | Leu | Lys |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Val | Leu | His | Lys | Gln | Cys | His | His | Lys | Arg | Tyr | Val | Glu | Leu | Thr | Asp |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Glu | Gln | Lys | Trp | Lys | Asn | Leu | Cys | Leu | Pro | Lys | Glu | Lys | Phe | Lys |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Ala | Leu | Leu | Gln | Leu | Asp | Pro | Cys | Glu | Asn | Lys | Ile | Lys | Trp | Ile | Asn |

115 120 125
 Phe Leu Ala Leu Gly Cys Ser Met Leu Gly Gly Ser Leu Asn Thr Ala
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 Leu Ala Ser Pro Ser Arg Arg Phe Pro Thr Phe Thr Ala Thr Trp Pro
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<210> 2701

<211> 646

<212> DNA

<213> Homo sapiens

<400> 2701

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<210> 2702

<211> 92

<212> PRT

<213> Homo sapiens

<400> 2702

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 50 55 60
 Tyr Glu Ser Gln Lys Ser Lys Ser Ser Val Ala Val Gly Asn Asp

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<400> 2704
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Lys Ala Ile Lys Ala Gly Ile Lys Cys Lys Pro Pro Leu Cys Ser Asn
      35             40             45
Ser Pro Ile Cys Ile Ala Arg Glu Cys Ser Gly Pro Trp Gly Lys Gly
      50             55             60
Leu Leu Pro Pro Glu Gly Thr Leu Leu Pro Arg Pro Leu Leu Gly Glu
65             70             75             80
Gly Pro Lys Gly Glu Ala Ser Lys Phe Pro Leu Phe Phe Asp Leu Ser
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Leu Val His Leu Pro Gln Ala His Pro Ala Ala Ser
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 <212> DNA
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<210> 2706
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 2706
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 Thr Val Thr Asp Pro Arg Asn Leu Leu Leu Ser Gly Ala Gln Leu Glu
 35 40 45
 Ala Ser Arg Asn Ile Val Gln Asn Tyr Arg Ala Gly Val Val Thr Pro
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 Ala Phe His Pro Asp Thr Gly Glu Lys Val Val Leu Ile Gly Arg Met


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780
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 Ser Leu Lys Glu Asn Ser Arg Leu Glu Asn Glu Leu Leu Glu Asn Ala
 485 490 495
 Glu Lys Leu Ala Glu Tyr Glu Asn Leu Thr Asn Lys Leu Gln Arg Asn
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 Glu Pro Glu His Gly Leu Gly Ser Glu Glu Cys Asn Pro Leu Asn Met
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 Ser Ile Glu Ala Glu Leu Val Ile Glu Gln Met Lys Glu Gln His His
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 Arg Asp Ile Cys Cys Leu Arg Leu Glu Leu Glu Asp Lys Val Arg His
 625 630 635 640
 Tyr Glu Lys Gln Leu Asp Glu Thr Val Val Ser Cys Lys Lys Ala Gln
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 1905 1910 1915 1920
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 2005 2010 2015
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 2020 2025 2030
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 2050 2055 2060
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<211> 2066

<212> DNA

<213> Homo sapiens

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<210> 2714

<211> 214

<212> PRT

<213> Homo sapiens

<400> 2714

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Ala | Glu | Leu | Gln | Gln | Pro | Ala | Leu | Ala | Gly | Ala | Asp | Trp | Gln | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Val | Glu | Thr | Ser | Gly | Ile | Ser | Ile | Tyr | Arg | Leu | Leu | Asp | Lys | Lys |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Thr | Gly | Leu | Tyr | Glu | Tyr | Lys | Val | Phe | Gly | Val | Leu | Glu | Asp | Cys | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Thr | Leu | Leu | Ala | Asp | Ile | Tyr | Met | Asp | Ser | Asp | Tyr | Arg | Lys | Gln |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Trp | Asp | Gln | Tyr | Val | Lys | Glu | Leu | Tyr | Glu | Gln | Glu | Cys | Asn | Gly | Glu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Thr | Val | Val | Tyr | Trp | Glu | Val | Lys | Tyr | Pro | Phe | Pro | Met | Ser | Asn | Arg |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Asp | Tyr | Val | Tyr | Leu | Arg | Gln | Arg | Asp | Leu | Asp | Met | Glu | Gly | Arg | |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Lys | Ile | His | Val | Ile | Leu | Ala | Arg | Ser | Thr | Ser | Met | Pro | Gln | Leu | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Arg | Ser | Gly | Val | Ile | Arg | Val | Lys | Gln | Tyr | Lys | Gln | Ser | Leu | Ala |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Ile | Glu | Ser | Asp | Gly | Lys | Lys | Gly | Ser | Lys | Val | Phe | Met | Tyr | Tyr | Phe |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Asp | Asn | Pro | Gly | Gly | Gln | Ile | Pro | Ser | Trp | Leu | Ile | Asn | Trp | Ala | Ala |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Lys | Asn | Gly | Val | Pro | Asn | Phe | Leu | Lys | Asp | Met | Ala | Arg | Ala | Cys | Gln |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Asn | Tyr | Leu | Lys | Lys | Thr | | | | | | | | | | |
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<210> 2716
 <211> 126
 <212> PRT
 <213> Homo sapiens

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 Gln Arg Gly Asp Leu Ser Asp Val Glu Glu Glu Glu Glu Glu Met
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 Asp Val Asp Glu Ala Thr Gly Ala Val Lys Lys His Asn Gly Val Gly
 50 55 60
 Gly Ser Pro Pro Lys Ser Lys Leu Leu Phe Ser Asn Thr Ala Ala Gln
 65 70 75 80
 Lys Leu Arg Gly Met Asp Glu Val Tyr Asn Leu Phe Tyr Val Asn Asn
 85 90 95
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420
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480
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<210> 2718

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2718

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| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Ala | Val | Ala | Gly | Arg | Pro | Cys | Leu | Cys | Arg | Thr | Leu | Ala | Leu | Ile | Leu |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Glu | Gly | Pro | Arg | Pro | Glu | Asn | Thr | Leu | Gly | Leu | Ser | Ser | Pro | Ala | Gln |
| | | | 35 | | | | 40 | | | | 45 | | | | |
| Thr | Thr | Gly | Glu | Gly | Ala | Gly | His | Arg | Pro | Leu | Thr | Ile | Leu | His | Pro |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Lys | Thr | Gly | Gly | Gln | Gly | Ser | Asp | Ala | Thr | Leu | Leu | Phe | Val | Lys | Tyr |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Gly | Thr | Thr | Phe | Phe | Val | Leu | Phe | Glu | Val | Ser | Ser | Gly | Ser | Lys | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ser | Lys | Trp | Leu | Lys | Asn | Ala | Lys | Cys | Asn | Tyr | Thr | Asp | Leu | | |
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<210> 2719

<211> 546

<212> DNA

<213> Homo sapiens

<400> 2719

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<213> Homo sapiens

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| Asp | Arg | Ser | Ala | Leu | Ala | Met | Trp | Leu | Asn | His | Leu | Glu | Asp | Arg | Thr |
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| Tyr | Gly | Gln | Thr | His | Tyr | Tyr | His | Gln | Arg | Gln | Asn | Ser | Asp | Asp | Lys |
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| Leu | Asn | Gly | Trp | Gln | Asn | Ser | Arg | Asp | Ser | Gly | Ile | Cys | Ile | Asn | Ala |
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| Leu | Tyr | Ser | Ser | Ser | Ser | Val | Pro | Thr | Thr | Ile | Asn | Thr | Ile | Gly | Thr |
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| Leu | Thr | Glu | Cys | Gln | Leu | Glu | Ala | Gln | Asn | Val | Thr | Lys | Gly | Ala | Arg |
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<211> 1221

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 2724

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| Thr | Ala | Pro | Met | Trp | Pro | Asn | Thr | Phe | Trp | Ser | Ala | Ala | Glu | Asp | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ile | Arg | Gln | Tyr | Asp | Leu | Arg | Glu | Asn | Ser | Lys | His | Ser | Glu | Val |
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| Leu | Ile | Asp | Leu | Thr | Glu | Tyr | Cys | Gly | Gln | Leu | Val | Glu | Ala | Lys | Cys |

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| Arg | Pro | Tyr | Thr | Phe | Leu | Leu | Pro | Arg | Lys | Cys | His | Ser | Ser | Gly | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Gln | Asn | Gly | Lys | Met | Ser | Thr | Asn | Gly | Val | Ser | Asn | Gly | Val | Ser |
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| Asn | Gly | Leu | His | Leu | His | Ser | Asn | Gly | Phe | Arg | Leu | Pro | Glu | Ser | Arg |
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| Gly | His | Val | Ser | Pro | Gln | Val | Glu | Leu | Pro | Pro | Tyr | Leu | Glu | Arg | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |
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| Leu | Tyr | Gly | Asn | Arg | Ala | Ala | Ala | Tyr | Met | Lys | Arg | Lys | Trp | Asp | Gly |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Asp | His | Tyr | Asp | Ala | Leu | Arg | Asp | Cys | Leu | Lys | Ala | Ile | Ser | Leu | Asn |
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| Pro | Cys | His | Leu | Lys | Ala | His | Phe | Arg | Leu | Ala | Arg | Cys | Leu | Phe | Glu |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Leu | Lys | Tyr | Val | Ala | Glu | Ala | Leu | Glu | Cys | Leu | Asp | Asp | Phe | Lys | Gly |
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| Lys | Phe | Pro | Glu | Gln | Ala | His | Ser | Ser | Ala | Cys | Asp | Ala | Leu | Gly | Arg |
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| Asp | Ile | Thr | Ala | Ala | Leu | Phe | Ser | Lys | Asn | Asp | Gly | Glu | Glu | Lys | Lys |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Gly | Pro | Gly | Gly | Gly | Ala | Pro | Val | Arg | Leu | Arg | Ser | Thr | Ser | Arg | Lys |
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<211> 856

<212> DNA

<213> Homo sapiens

<400> 2725

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<210> 2726

<211> 148

<212> PRT

<213> Homo sapiens

<400> 2726

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| Met | Ala | Ser | Pro | Arg | Thr | Arg | Lys | Val | Leu | Lys | Glu | Val | Arg | Val | Gln |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Asp | Glu | Asn | Asn | Val | Cys | Phe | Glu | Cys | Gly | Ala | Phe | Asn | Pro | Gln | Trp |
| | 20 | | | | | | 25 | | | | | 30 | | | |
| Val | Ser | Val | Thr | Tyr | Gly | Ile | Trp | Ile | Cys | Leu | Glu | Cys | Ser | Gly | Arg |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| His | Arg | Gly | Leu | Gly | Val | His | Leu | Ser | Phe | Val | Arg | Ser | Val | Thr | Met |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Asp | Lys | Trp | Lys | Asp | Ile | Glu | Leu | Glu | Lys | Met | Lys | Ala | Gly | Gly | Asn |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Lys | Phe | Arg | Glu | Phe | Leu | Glu | Ser | Gln | Glu | Asp | Tyr | Asp | Pro | Cys |
| | | 85 | | | | | | 90 | | | | | 95 | | |
| Trp | Ser | Leu | Gln | Glu | Lys | Tyr | Asn | Ser | Arg | Ala | Ala | Ala | Leu | Phe | Arg |
| | 100 | | | | | | 105 | | | | | | 110 | | |
| Asp | Lys | Val | Val | Ala | Leu | Ala | Glu | Gly | Arg | Glu | Trp | Ser | Leu | Glu | Ser |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ser | Pro | Ala | Gln | Asn | Trp | Thr | Pro | Pro | Gln | Pro | Arg | Thr | Leu | Pro | Ser |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Met | Val | His | Arg | | | | | | | | | | | | |
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<210> 2727
 <211> 1119
 <212> DNA
 <213> Homo sapiens

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 1020
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<210> 2728
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 2728
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  35      40      45
Val Arg Asp Ala Phe Gln Glu Val Phe Gly Leu Ala Val Val Val Gly
  50      55      60
Glu Ala Gly Gln Ser Asn Ile Ala Pro Gln Pro Val Gly Tyr Ala Ala
  65      70      75      80
Gly Leu Lys Gly Ala Gln Glu Arg Ile Asp Ser Leu Arg Arg Thr Gly
      85      90      95
Val Ile His Glu Lys Gln Thr Ala Val Ser Val Glu Asn Phe Ile Ala
  100      105      110
Glu Leu Leu Pro Asp Lys Trp Phe Asp Ile Gly Cys Leu Val Val Glu
  115      120      125
Asp Pro Val His Gly Ile His Leu Glu Thr Phe Thr Gln Ala Thr Pro
  130      135      140
Val Pro Leu Glu Phe Val Gln Gln Ala Gln Ser Leu Thr Pro Gln Asp
  145      150      155      160
Tyr Asn Leu Arg Trp Ser Gly Leu Leu Val Thr Val Gly Glu Val Leu
      165      170      175
Glu Lys Ser Leu Leu Asn Val Ser Arg Thr Asp Trp His Met Ala Phe
  180      185      190
Thr Gly Met Ser Arg Arg Gln Met Ile Tyr Ser Ala Ala Arg Ala Ile
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Ala Gly Met Tyr Lys Gln Arg Leu Pro Pro Arg Thr Val
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<210> 2729

<211> 393

<212> DNA

<213> Homo sapiens

<400> 2729

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<210> 2730

<211> 92

<212> PRT

<213> Homo sapiens

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      20              25              30
Leu Asp Gln Cys Ala Glu Asp Phe Arg Glu Pro Pro His Phe Pro Cys
      35              40              45
Leu Gln Lys Leu Leu Asp Tyr Leu Thr Arg Met Met Pro Gly Ser Asp
      50              55              60
Pro Glu Arg Arg Ala Gln Asn Leu Leu Glu Gln Phe Gln Lys Gln Glu
      65              70              75              80
Val Glu Thr Asp Asn Gly Leu Pro Asn Thr Ile Ser
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<210> 2731

<211> 447

<212> DNA

<213> Homo sapiens

<400> 2731

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180
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300
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<210> 2732

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2732

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Gln Asn Gln Gln Asn Gly Gln Arg Val Tyr Thr Ser Met Ser Asp Cys
      35              40              45
Leu Ile Lys Thr Val Arg Ser Glu Gly Tyr Phe Gly Met Tyr Arg Gly
      50              55              60
Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala Ile Lys Leu
      65              70              75              80
Ala Ala Asn Asp Phe Phe Arg His Gln Leu Ser Lys Asp Gly Gln Lys
      85              90              95
Leu Thr Leu Leu Lys Glu Met Leu Ala Gly Cys Gly Ala Gly Thr Cys

```

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| | 100 | | 105 | | 110 |
| Gln | Val | Ile | Val | Thr | Thr |
| | | | Pro | Met | Glu |
| | | | | Met | Leu |
| | | | | Lys | Ile |
| | 115 | | 120 | | 125 |

<210> 2733

<211> 3619

<212> DNA

<213> Homo sapiens

<400> 2733

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 180
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<211> 790

<212> PRT

<213> Homo sapiens

<400> 2734

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Asn | Leu | Asn | Arg | Cys | Ile | Ala | Asp | Val | Val | Ser | Leu | Phe | Ile | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Met | Asp | Lys | Leu | Arg | Leu | Ala | Glu | Leu | Thr | Val | Asp | Glu | Phe | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Gly | Phe | Asp | Ser | Glu | Ser | Glu | Ser | Glu | Ser | Glu | Asn | Ser | Pro |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Gln | Ala | Glu | Thr | Arg | Glu | Ala | Arg | Glu | Ala | Ala | Arg | Ser | Pro | Asp | Lys |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Pro | Gly | Gly | Ser | Pro | Ser | Ala | Ser | Arg | Arg | Lys | Gly | Arg | Ala | Ser | Glu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| His | Lys | Asp | Gln | Leu | Ser | Arg | Leu | Lys | Asp | Arg | Asp | Pro | Glu | Phe | Tyr |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Lys | Phe | Leu | Gln | Glu | Asn | Asp | Gln | Ser | Leu | Leu | Asn | Phe | Ser | Asp | Ser |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Asp | Ser | Ser | Glu | Glu | Glu | Glu | Gly | Pro | Phe | His | Ser | Leu | Pro | Asp | Val |
| | | | 130 | | | | 135 | | | | | 140 | | | |
| Leu | Glu | Glu | Ala | Ser | Glu | Glu | Glu | Asp | Gly | Ala | Glu | Glu | Gly | Glu | Asp |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Gly | Asp | Arg | Val | Pro | Arg | Gly | Leu | Lys | Gly | Lys | Lys | Asn | Ser | Val | Pro |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Val | Thr | Val | Ala | Met | Val | Glu | Arg | Trp | Lys | Gln | Ala | Ala | Lys | Gln | Arg |

1975

| | | | | |
|---------------------|-----------------|---------------------|-----------------|-----|
| 610 | | 615 | | 620 |
| Glu Gln Gln Ala Val | Glu Ala Trp | Glu Lys Leu Thr Arg | Glu Glu Gly | |
| 625 | 630 | 635 | 640 | |
| Thr Pro Leu Thr | Leu Tyr Tyr Ser | His Trp Arg Lys | Leu Arg Asp Arg | |
| | 645 | 650 | 655 | |
| Glu Ile Gln Leu Glu | Ile Ser Gly | Lys Glu Arg Val Arg | Leu Gly Glu | |
| | 660 | 665 | 670 | |
| Gly Thr Trp Leu Glu | Asp Leu Asn Phe | Pro Glu Ile Lys | Arg Arg Lys | |
| | 675 | 680 | 685 | |
| Met Ala Asp Arg Lys | Asp Glu Asp Arg | Lys Gln Phe Lys | Asp Leu Phe | |
| | 690 | 695 | 700 | |
| Asp Leu Asn Ser Ser | Glu Glu Asp Asp | Thr Glu Gly Phe | Leu Glu Arg | |
| 705 | 710 | 715 | 720 | |
| Gly Ile Leu Gly Pro | Leu Ser Thr Arg | His Gly Val Glu | Asp Asp Glu | |
| | 725 | 730 | 735 | |
| Glu Asp Glu Glu Glu | Gly Glu Glu Asp | Ser Ser Asn Ser | Glu Gly Glu | |
| | 740 | 745 | 750 | |
| Trp Ser Trp Asp Gly | Asp Pro Asp Ala | Glu Ala Gly Leu | Ala Pro Gly | |
| | 755 | 760 | 765 | |
| Glu Leu Gln Gln Leu | Ala Gln Gly Pro | Glu Asp Glu Leu | Glu Asp Leu | |
| | 770 | 775 | 780 | |
| Gln Leu Ser Glu Asp | Asp | | | |
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<211> 1666

<212> DNA

<213> Homo sapiens

<400> 2735

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720

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1666

<210> 2736

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2736

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Lys | Gln | Tyr | Asp | Val | Leu | Phe | Arg | Leu | Leu | Leu | Ile | Gly | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Gly | Val | Gly | Lys | Thr | Cys | Leu | Leu | Cys | Arg | Phe | Thr | Asp | Asn | Glu |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Phe | His | Ser | Ser | His | Ile | Ser | Thr | Ile | Gly | Val | Asp | Phe | Lys | Met | Lys |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Thr | Ile | Glu | Val | Asp | Gly | Ile | Lys | Val | Arg | Ile | Gln | Ile | Trp | Asp | Thr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Gly | Gln | Glu | Arg | Tyr | Gln | Thr | Ile | Thr | Lys | Gln | Tyr | Tyr | Arg | Arg |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Ala | Gln | Gly | Ile | Phe | Leu | Val | Tyr | Asp | Ile | Ser | Ser | Glu | Arg | Ser | Tyr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gln | His | Ile | Met | Lys | Trp | Val | Ser | Asp | Val | Asp | Glu | Tyr | Ala | Pro | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Val | Gln | Lys | Ile | Leu | Ile | Gly | Asn | Lys | Ala | Asp | Glu | Glu | Gln | Lys |

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Arg Gln Val Gly Arg Glu Gln Gly Gln Gln Lys Cys Pro Ser Leu Gln | | |
| 130 | 135 | 140 |
| Leu Ala Lys Glu Tyr Gly Met Asp Phe Tyr Glu Thr Ser Ala Cys Thr | | |
| 145 | 150 | 155 |
| Asn Leu Asn Ile Lys Glu Ser Phe Thr Arg Leu Thr Glu Leu Val Leu | | |
| 165 | 170 | 175 |
| Gln Ala His Arg Lys Glu Leu Glu Gly Leu Arg Met Arg Ala Ser Asn | | |
| 180 | 185 | 190 |
| Glu Leu Ala Leu Ala Glu Leu Glu Glu Glu Glu Gly Lys Pro Glu Gly | | |
| 195 | 200 | 205 |
| Pro Ala Asn Ser Ser Lys Thr Cys Trp Cys | | |
| 210 | 215 | |

<210> 2737
 <211> 898
 <212> DNA
 <213> Homo sapiens

<400> 2737
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 120
 cagttacaga gtgctgccat caccaagtat gtggcggacg tcctgccggg gaagaatcaa
 180
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 240
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 300
 cgggcccacc agagcatcct gacacagcgg gtgcactggg ccgaggcgct gcagaaactt
 360
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 420
 cagaaggagc aagagatatt cgagaggacc gaagaagcag agggcatttt ggatccccag
 480
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 660
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 720
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 780
 aaggtgggag tggttcagg ccacctgccc cgcaagggtt ctggcagtga ctgccgtctg
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 898

<210> 2738
 <211> 299
 <212> PRT

<213> Homo sapiens

<400> 2738

Xaa Pro Val Cys Ala Thr Cys Ala Gly Phe Gly Gly Arg Cys His Arg
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 Ile Val Asp Gln Cys Glu Arg Leu Gln Leu Gln Ser Ala Ala Ile Thr
 35 40 45
 Lys Tyr Val Ala Asp Val Leu Pro Gly Lys Asn Gln Arg Ala Val Ser
 50 55 60
 Met Ala Ser Ala Ala Arg Glu Leu Val Ile Gln Arg Leu Ser Leu Val
 65 70 75 80
 Arg Ser Leu Cys Glu Ser Glu Glu Gln Arg Leu Leu Glu Gln Val His
 85 90 95
 Gly Glu Glu Glu Arg Ala His Gln Ser Ile Leu Thr Gln Arg Val His
 100 105 110
 Trp Ala Glu Ala Leu Gln Lys Leu Asp Thr Ile Arg Thr Gly Leu Val
 115 120 125
 Gly Met Leu Thr His Leu Asp Asp Leu Gln Leu Ile Gln Lys Glu Gln
 130 135 140
 Glu Ile Phe Glu Arg Thr Glu Glu Ala Glu Gly Ile Leu Asp Pro Gln
 145 150 155 160
 Glu Ser Glu Met Leu Asn Phe Asn Glu Lys Cys Thr Arg Ser Pro Leu
 165 170 175
 Leu Thr Gln Leu Trp Ala Thr Ala Val Leu Gly Ser Leu Ser Gly Thr
 180 185 190
 Glu Asp Ile Arg Ile Asp Glu Arg Thr Val Ser Pro Phe Leu Gln Leu
 195 200 205
 Ser Asp Asp Arg Lys Thr Leu Thr Ser Ala Pro Arg Ser Gln Arg Cys
 210 215 220
 Ala Asp Gly Pro Glu Arg Phe Asp His Trp Pro Asn Ala Leu Ala Ala
 225 230 235 240
 Thr Ser Phe Gln Asn Gly Leu His Ala Trp Met Val Asn Val Gln Asn
 245 250 255
 Ser Cys Ala Tyr Lys Val Gly Val Ala Ser Gly His Leu Pro Arg Lys
 260 265 270
 Gly Ser Gly Ser Asp Cys Arg Leu Gly His Asn Ala Phe Ser Trp Val
 275 280 285
 Phe Ser Arg Tyr Asp Gln Glu Phe Arg Phe Ser
 290 295

<210> 2739

<211> 1501

<212> DNA

<213> Homo sapiens

<400> 2739

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 120
 ttcattctcg gcttctgctg gctgagtcgc gcgctgcagg atctgcaagc cacggaggcc
 180

aattgcacgg tgctgtcggg gcagcagatc ggcgaggtgt tcgagtgcac cttcacctgt
240
ggcgccgact gcagggggcac ctgcgagtag ccctgcgtcc aggtctacgt gaacaactct
300
gagtccaact ctagggcgct gctgcacagc gacgagcacc agctcctgac caaccccaag
360
tgctcctata tccctccctg taagagagaa aatcagaaga atttggaag tgcatgaat
420
tggcaacagt actggaaaga tgagattggt tcccagccat ttacttgcta ttttaatcaa
480
catcaaagac cagatgatgt gcttctgcat cgcactcatg atgagattgt cctcctgcat
540
tgcttccctc ggccccctgg gacatttctg gtggcgcttc tcatttggt cctgaccatc
600
tgtgccaaga gcttgccggt caaggcggaa gccatgaaga agcgcaagtt ctcttaaagg
660
ggaaggaggc ttgtagaaag caaagtacag aagctgtact catcggcacg cgtccacctg
720
cggaacctgt gtttccctgg gcaggagatg gacagggcca cgacagggt ctgagaggct
780
catccctcag tggcaacaga aacaggcaca actggaagac ttggaacctc aaagcttgta
840
ttccatctgc tgtagcaatg gctaaagggt caagatctta gctgtatgga gtaactattt
900
cagaaaaccc tataagaagt tcattttctt tcaaaagtaa cagtatatta tttgtacagt
960
gtagtataca aaccattatg atttatgcta cttaaaaata ttaaaataga gtggtctgtg
1020
ttattttcta tttccttttt tatgcttaga acaccagggt tttaaaaaaa aaaaaagggtg
1080
aggacatctg ggtctcattt gcttctgcta ggttaaactt ttacttgaca acaaggattc
1140
ctgctgaagt ctgaacctta ctgtgtaacc ctgagtttcc actattaaag agtatctttt
1200
gacgtcctgc ttggaaaatg aatagtatac tggtaactca gtctccagtc acctctgtgt
1260
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1320
taaccattat ttttcaccag attacttctt aagagaggga ggtgattctg aagaaggctt
1380
ctatctcaaa aagcactggg cttccttatt catctgttct tgttgttttt gacggagtta
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1500
a
1501

<210> 2740

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2740

Glu Ser Arg Arg Glu Trp Gly Ala Met Ala Lys Leu Arg Val Ala Tyr

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Glu Tyr Thr Glu Ala Glu Asp Lys Ser Ile Arg Leu Gly Leu Phe Leu | | | |
| | 20 | 25 | 30 |
| Ile Ile Ser Gly Val Val Ser Leu Phe Ile Phe Gly Phe Cys Trp Leu | | | |
| | 35 | 40 | 45 |
| Ser Pro Ala Leu Gln Asp Leu Gln Ala Thr Glu Ala Asn Cys Thr Val | | | |
| | 50 | 55 | 60 |
| Leu Ser Val Gln Gln Ile Gly Glu Val Phe Glu Cys Thr Phe Thr Cys | | | |
| 65 | | 70 | 75 |
| Gly Ala Asp Cys Arg Gly Thr Ser Gln Tyr Pro Cys Val Gln Val Tyr | | | |
| | 85 | 90 | 95 |
| Val Asn Asn Ser Glu Ser Asn Ser Arg Ala Leu Leu His Ser Asp Glu | | | |
| | 100 | 105 | 110 |
| His Gln Leu Leu Thr Asn Pro Lys Cys Ser Tyr Ile Pro Pro Cys Lys | | | |
| | 115 | 120 | 125 |
| Arg Glu Asn Gln Lys Asn Leu Glu Ser Val Met Asn Trp Gln Gln Tyr | | | |
| | 130 | 135 | 140 |
| Trp Lys Asp Glu Ile Gly Ser Gln Pro Phe Thr Cys Tyr Phe Asn Gln | | | |
| 145 | | 150 | 155 |
| His Gln Arg Pro Asp Asp Val Leu Leu His Arg Thr His Asp Glu Ile | | | |
| | 165 | 170 | 175 |
| Val Leu Leu His Cys Phe Leu Trp Pro Leu Val Thr Phe Val Val Gly | | | |
| | 180 | 185 | 190 |
| Val Leu Ile Val Val Leu Thr Ile Cys Ala Lys Ser Leu Ala Val Lys | | | |
| | 195 | 200 | 205 |
| Ala Glu Ala Met Lys Lys Arg Lys Phe Ser | | | |
| | 210 | 215 | |

<210> 2741

<211> 1487

<212> DNA

<213> Homo sapiens

<400> 2741

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120
tcctacaagg actggtctca gaacatgtat ttcaactgct cagaagacaa cccagtcga
180
gagcgtgct ctgtgcctta ctctgttgc ttgctactc ctgaccaggc agtgatcaac
240
actatgtgtg gccaaagtat gcaggccttt gactacttgg aagctagcaa agtcatctac
300
accaatggct gtattgacaa gttggtcaac tggatacaca gcaacctatt cttacttgg
360
ggtgtggctc taggctggc catccccag ctggtgggaa ttctgctgtc ccagatccta
420
gtgaatcaga tcaaagatca gatcaagcta cagctctaca accagcagca ccgggctgac
480
ccatggtact gagaatccat cctgcacctc ctcaccatgg aaactggcaa gcctcataaa
540
cgaacagcag tgggtgctga aagcagcacc aaatggagat ttggattcca gccccccagt
600

gacagcccag tgggaagaag caaactccag atgggcagaa ggcagggtgc acagggtggct
 660
 ccagtctcag gaggatgcgc ctcctctccc ccatcccagc cctcagcatt gtgccagagt
 720
 gataccctta agtggttggg tttatgtttt cagttttgtt tgggaaacag cagttgcaca
 780
 gagagtggg ggtactgctg ctgccttttc accgaggcac tgccaccacc agctctagca
 840
 gggatgctcc tgagcttggc ggacatactt agatcctaac gtgccagtga gacctggctg
 900
 tggagagtag cactggcagc cctgcctgga ctccacttgg catgatacca gctccagaag
 960
 ggaagggagt ggagcaggca gtgaggagag agcctggggg tcggctgggg acagccgtat
 1020
 gtgctaggta ggagtggagg gagatatgtt taccaaatgc ctgtcctgcc atcctcccag
 1080
 gtagtcagag tgagctacat cctgccccgc cttcatttcc atggaaacat ggcagctagg
 1140
 acacggggta tacaacagca gccaaattct tccccacctc cttacttcg aaaaaaagt
 1200
 tggaaccctg gtccctatac tctgcagtca gaagtgggac tgagccatac atgcccttga
 1260
 attcctccct gtctggccct ccctctccag caagcagggg tttctttaac ttggcagtgt
 1320
 gcagaggaga agtggttaaca cccccacccc attcccctgc atcggagctc agtattccta
 1380
 cagggttaaga ggtaggaatc ttgctgggac gaggggagcc agaagtggca ataaaagcgt
 1440
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 1487

<210> 2742

<211> 163

<212> PRT

<213> Homo sapiens

<400> 2742

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Arg | Gly | Lys | Val | Ser | Glu | Ile | Ile | Asn | Asn | Ala | Ile | Val | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Arg | Asp | Asp | Leu | Asp | Leu | Gln | Asn | Leu | Ile | Asp | Phe | Gly | Gln | Lys |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Lys | Phe | Ser | Cys | Cys | Gly | Gly | Ile | Ser | Tyr | Lys | Asp | Trp | Ser | Gln | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Tyr | Phe | Asn | Cys | Ser | Glu | Asp | Asn | Pro | Ser | Arg | Glu | Arg | Cys | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Pro | Tyr | Ser | Cys | Cys | Leu | Pro | Thr | Pro | Asp | Gln | Ala | Val | Ile | Asn |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Thr | Met | Cys | Gly | Gln | Gly | Met | Gln | Ala | Phe | Asp | Tyr | Leu | Glu | Ala | Ser |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Lys | Val | Ile | Tyr | Thr | Asn | Gly | Cys | Ile | Asp | Lys | Leu | Val | Asn | Trp | Ile |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| His | Ser | Asn | Leu | Phe | Leu | Leu | Gly | Gly | Val | Ala | Leu | Gly | Leu | Ala | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Gln | Leu | Val | Gly | Ile | Leu | Leu | Ser | Gln | Ile | Leu | Val | Asn | Gln | Ile |

130 135 140
 Lys Asp Gln Ile Lys Leu Gln Leu Tyr Asn Gln Gln His Arg Ala Asp
 145 150 155 160
 Pro Trp Tyr

<210> 2743
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 2743
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 120
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 180
 ccattccgc ccagagccta ccaagactga ggtgtccagt ctccacctgg agcctcccgga
 240
 gactggagtg gcccattctt acctggagcc tcctgggact ggagtgtctc atctctgccc
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 360
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 384

<210> 2744
 <211> 69
 <212> PRT
 <213> Homo sapiens

<400> 2744
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 20 25 30
 Asp Trp Ser Val Pro Ser Pro Pro Thr Ala Ser Gln Asp Ser Gly Val
 35 40 45
 Gln Ser Pro Pro Gly Ala Ser Arg Asp Trp Ser Val Pro Ser Pro Pro
 50 55 60
 Arg Ala Tyr Gln Asp
 65

<210> 2745
 <211> 769
 <212> DNA
 <213> Homo sapiens

<400> 2745
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 120

agtatcacct gagaaaatta ggcattcccc tcttggaac acgtctctgt gagtttgc
 180
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 240
 tcttgagggg tccgagcctc aggccaagga cccctgatgc agactctgga atccctggcc
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 caaaggcctg tctgggcccc tctggggctg aggacacaca gatacataat gacacctgca
 360
 gaaatgtatt ctctgaggac acttagaata tgaggaagag ggtgtggccc aaccctcact
 420
 tcacctgggg aggggcttct tccggacagt agacaccctg cccgtgcaga gagatgtcat
 480
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 600
 cacaccacag ccaggagggg cctttccac ctgggagaga aacttccaga ccagccctc
 660
 ataccacagc caagaggggc ctttctcacc tggagagaaa cttccagacc agccctcac
 720
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 769

<210> 2746

<211> 98

<212> PRT

<213> Homo sapiens

<400> 2746

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Trp | Gly | His | Leu | Leu | Ser | Leu | Ile | Asp | Ala | Glu | Ser | Ile | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Leu | Pro | Asp | Gln | Pro | Ser | His | His | Thr | Gln | Lys | Arg | Pro | Phe | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Gly | Glu | Lys | Leu | Pro | Asp | Gln | Pro | Phe | Thr | His | His | Ser | Gln | Glu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Gly | Pro | Phe | Pro | Pro | Gly | Arg | Glu | Thr | Ser | Arg | Pro | Ala | Pro | His | Thr |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Thr | Ala | Lys | Arg | Gly | Leu | Ser | His | Leu | Glu | Arg | Asn | Phe | Gln | Thr | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Pro | Ser | His | His | Ser | Gln | Glu | Gly | Pro | Phe | Pro | Pro | Gly | Glu | Lys | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Asp | | | | | | | | | | | | | | |

<210> 2747

<211> 1100

<212> DNA

<213> Homo sapiens

<400> 2747

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 120

agggccccgg cagggttcgcc caagggctgc ttcgcttgcg tgtccaagcc ccctgcccctg
 180
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 240
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 360
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 420
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 480
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 540
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 600
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 660
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 720
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 780
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 960
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 aatacccatg cagctccaaa
 1100

<210> 2748

<211> 205

<212> PRT

<213> Homo sapiens

<400> 2748

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Phe | Phe | Ser | Arg | Pro | Arg | Ala | Pro | Ala | Ser | Ala | Gln | Pro | Arg | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Pro | Arg | Pro | Ala | Pro | Arg | Thr | Ala | Pro | Arg | Lys | Pro | Glu | Ser | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Thr | Gly | Ala | Phe | Trp | Ile | Pro | Arg | Pro | Pro | Ala | Gly | Ser | Pro | Lys |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Gly | Cys | Phe | Ala | Cys | Val | Ser | Lys | Pro | Pro | Ala | Leu | Gln | Ala | Pro | Ala |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Pro | Ala | Pro | Glu | Pro | Ser | Ala | Ser | Pro | Pro | Met | Ala | Pro | Thr | Leu |
| 65 | | | | 70 | | | | | 75 | | | | 80 | | |
| Phe | Pro | Met | Glu | Ser | Lys | Ser | Ser | Lys | Thr | Asp | Ser | Val | Arg | Ala | Ala |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Ala | Pro | Pro | Ala | Cys | Lys | His | Leu | Ala | Glu | Lys | Lys | Thr | Met | Thr |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 100 | | 105 | | 110 | | | | | | | | | | |
| Asn | Pro | Thr | Thr | Val | Ile | Glu | Val | Tyr | Pro | Asp | Thr | Thr | Glu | Val | Asn |
| | 115 | | | | | | 120 | | | | | | 125 | | |
| Asp | Tyr | Tyr | Leu | Trp | Ser | Ile | Phe | Asn | Phe | Val | Tyr | Leu | Asn | Phe | Cys |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Cys | Leu | Gly | Phe | Ile | Ala | Leu | Ala | Tyr | Ser | Leu | Lys | Val | Arg | Asp | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Lys | Leu | Leu | Asn | Asp | Leu | Asn | Gly | Ala | Val | Glu | Asp | Ala | Lys | Thr | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Arg | Leu | Phe | Asn | Ile | Thr | Ser | Ser | Ala | Leu | Ala | Ala | Ser | Cys | Ile | Ile |
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<212> DNA

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<400> 2749

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| Ile | Cys | Thr | Arg | Thr | Val | Gln | His | Gln | Asp | Ser | Gln | Val | Asn | Ala | Leu |
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| Glu | Val | Thr | Pro | Asp | Arg | Ser | Met | Ile | Ala | Ala | Ala | Val | Gln | Pro | Val |
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<212> DNA

<213> Homo sapiens

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<212> DNA

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<210> 2756

<211> 550

<212> PRT

<213> Homo sapiens

<400> 2756

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35      40      45
Ala Lys Glu Asn Leu Lys Lys Ile Gln Glu Met Glu Lys Ser Asp Glu
50      55      60
Ser Ser Thr Asp Leu Glu Glu Leu Lys Asn Ala Asp Trp Ala Arg Phe
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Trp Val Gln Val Met Arg Asp Leu Arg Asn Gly Val Lys Leu Lys Lys
85      90      95
Val Gln Glu Arg Gln Tyr Asn Pro Leu Pro Ile Glu Tyr Gln Leu Thr
100      105      110
Pro Tyr Glu Met Leu Met Asp Asp Ile Arg Cys Lys Arg Tyr Thr Leu
115      120      125
Arg Lys Val Met Val Asn Gly Asp Ile Pro Pro Arg Leu Lys Lys Ser
130      135      140
Ala His Glu Ile Ile Leu Asp Phe Ile Arg Ser Arg Pro Pro Leu Asn
145      150      155      160
Pro Val Ser Ala Arg Lys Leu Lys Pro Thr Pro Pro Arg Pro Arg Ser
165      170      175
Leu His Glu Arg Ile Leu Glu Glu Ile Lys Ala Glu Arg Lys Leu Arg
180      185      190
Pro Val Ser Pro Glu Glu Ile Arg Arg Ser Arg Leu Asp Val Thr Thr
195      200      205
Pro Glu Ser Thr Lys Asn Leu Val Glu Ser Ser Met Val Asn Gly Gly
210      215      220
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225      230      235      240
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Asp Ser Ser Glu Ser Glu Glu Glu Thr Leu His Lys Ser Thr Ser Ser
260      265      270
Ser Ser Val Ser Pro Ser Phe Pro Glu Glu Pro Val Leu Glu Ala Val
275      280      285
Ser Thr Arg Lys Lys Pro Pro Lys Phe Leu Pro Ile Ser Ser Thr Pro
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Gln Pro Glu Arg Arg Gln Pro Pro Gln Arg Arg His Ser Ile Glu Lys
305      310      315      320
Glu Thr Pro Thr Asn Val Arg Gln Phe Leu Pro Pro Ser Arg Gln Ser
325      330      335
Ser Arg Ser Leu Glu Glu Phe Cys Tyr Pro Val Glu Cys Leu Ala Leu
340      345      350
Thr Val Glu Glu Val Met His Ile Arg Gln Val Leu Val Lys Ala Glu
355      360      365
Leu Glu Lys Tyr Gln Gln Tyr Lys Asp Ile Tyr Thr Ala Leu Lys Lys
370      375      380
Gly Lys Leu Cys Phe Cys Cys Arg Thr Arg Arg Phe Ser Phe Phe Thr
385      390      395      400
Trp Ser Tyr Thr Cys Gln Phe Cys Lys Arg Pro Val Cys Ser Gln Cys
405      410      415
Cys Lys Lys Met Arg Leu Pro Ser Lys Pro Tyr Ser Thr Leu Pro Ile

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 465 470 475 480
 Gln Phe Pro Lys Glu Leu Met Glu Asp Trp Ser Thr Met Glu Val Cys
 485 490 495
 Val Asp Cys Lys Lys Phe Ile Ser Glu Ile Ile Ser Ser Ser Arg Arg
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 Ser Leu Val Leu Ala Asn Lys Arg Ala Arg Leu Lys Arg Lys Thr Gln
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<210> 2757
 <211> 449
 <212> DNA
 <213> Homo sapiens

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<210> 2758
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 <212> PRT
 <213> Homo sapiens

<400> 2758
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 Gln Asp His Ser Ser Leu Asn Pro Gln Lys Trp His Cys Val Asp Cys
 20 25 30
 Asn Thr Thr Glu Ser Ile Trp Ala Cys Leu Ser Cys Ser His Val Ala
 35 40 45
 Cys Gly Arg Tyr Ile Glu Glu His Ala Leu Lys His Phe Gln Glu Ser

50 55 60
 Ser His Pro Val Ala Leu Glu Val Asn Glu Met Tyr Val Phe Cys Tyr
 65 70 75 80
 Leu Cys

<210> 2759
 <211> 688
 <212> DNA
 <213> Homo sapiens

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<210> 2760
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 <212> PRT
 <213> Homo sapiens

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 Arg Pro Glu Pro Gln Arg Pro Arg Asn Arg Pro Tyr Phe Gln Arg Arg
 35 40 45
 Arg Gln Gln Ala Pro Gly Pro Gln Gln Ala Pro Gly Pro Arg Gln Pro
 50 55 60
 Ala Ala Pro Glu Thr Ser Ala Pro Val Asn Ser Gly Asp Pro Thr Thr
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 Thr Ile Leu Glu

<210> 2761
 <211> 922
 <212> DNA
 <213> Homo sapiens

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<210> 2762
 <211> 307
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Asp Lys Thr Trp Val Lys Lys Gly Glu Pro Leu Pro Val Lys Leu

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 Asn Ser Ser Thr Glu Ala Asn Val Ile Lys Glu Ala Leu Asp Ser Ser
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 Lys Ser Glu Val Gln Leu Trp Leu Lys Arg Ile Gln Val Pro Ile
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 Glu Asp Ile Leu Pro Ser Lys Glu Lys Ser Lys Thr Pro Pro Met
 115 120 125
 Phe Leu Cys Ile Lys Val Gly Lys Pro Met Arg Lys Ser Phe Ala Thr
 130 135 140
 His Thr Ala Ala Met Val Gln Gln Tyr Gly Lys Arg Arg Lys Gln Pro
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 Glu Tyr Trp Phe Ala Val Pro Arg Glu Arg Val Asp His Leu Tyr Thr
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 Phe Phe Val Gln Trp Ser Pro Asp Val Tyr Gly Lys Asp Ala Lys Glu
 180 185 190
 Gln Gly Phe Val Val Val Glu Lys Glu Glu Leu Asn Met Ile Asp Asn
 195 200 205
 Phe Phe Ser Glu Pro Thr Thr Lys Ser Trp Glu Ile Ile Thr Val Glu
 210 215 220
 Glu Ala Lys Arg Arg Lys Ser Thr Cys Ser Tyr Tyr Glu Asp Glu Asp
 225 230 235 240
 Glu Glu Val Leu Pro Val Leu Arg Pro Pro Arg Ala Phe Trp Glu Asn
 245 250 255
 Lys Pro Leu Asn Arg Trp Ala Arg Pro Phe Pro Ala Arg Val Gln Gly
 260 265 270
 Tyr Pro Trp Arg Leu Ala Tyr Ser Thr Leu Glu His Gly Thr Ser Leu
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<210> 2763

<211> 2210

<212> DNA

<213> Homo sapiens

<400> 2763

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 2210

<210> 2764
 <211> 423
 <212> PRT
 <213> Homo sapiens

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 Val Ala Ser Gly Pro Val Val Gly Gly Arg Lys Lys Val Arg Gly Pro
 35 40 45
 Glu Gln Ile Lys Gln Glu Val Glu Ser Glu Glu Glu Lys Pro Asp Arg
 50 55 60
 Met Asp Ile Asp Ser Glu Asp Thr Asp Ser Asn Thr Ser Leu Gln Thr
 65 70 75 80
 Arg Ala Arg Glu Lys Arg Lys Pro Gln Leu Glu Lys Asp Thr Lys Pro
 85 90 95
 Lys Glu Pro Arg Tyr Thr Pro Val Ser Ile Tyr Glu Glu Lys Leu Leu
 100 105 110
 Leu Lys Arg Leu Glu Ala Cys Pro Gly Ala Val Ala Met Thr Pro Glu
 115 120 125
 Ala Arg Arg Leu Lys Arg Lys Leu Ile Val Arg Gln Ala Lys Arg Asp
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 145 150 155 160
 Leu Leu Val Asp Gly Ile Tyr Gly Ala Lys Glu Gly Gly Ile Ser Arg
 165 170 175
 Leu Pro Ala Gly Gln Ala Thr Tyr Arg Thr Thr Cys Gln Asp Phe Arg
 180 185 190
 Ile Leu Asp Arg Tyr Gln Thr Ser Leu Pro Ser Arg Lys Gly Phe Arg
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 His Gln Thr Thr Lys Phe Leu Tyr Arg Leu Val Gly Ser Glu Asp Met
 210 215 220
 Ala Val Asp Gln Ser Ile Val Ser Pro Tyr Thr Ser Arg Ile Leu Lys
 225 230 235 240
 Pro Tyr Ile Arg Arg Asp Tyr Glu Thr Lys Pro Pro Lys Leu Gln Leu
 245 250 255
 Leu Ser Gln Ile Arg Ser His Leu His Arg Ser Asp Pro His Trp Thr
 260 265 270
 Pro Glu Pro Asp Ala Pro Leu Asp Tyr Cys Tyr Val Arg Pro Asn His
 275 280 285
 Ile Pro Thr Ile Asn Ser Met Cys Gln Glu Phe Phe Trp Pro Gly Ile
 290 295 300
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 305 310 315 320
 Tyr Lys Lys Val Ile Ile Ala Phe Gly Phe Met Val Pro Asp Val Lys

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Arg Ala Gly Ile Ala Thr Phe Met Ile Tyr His Leu Ile Gln Thr Cys
          355          360          365
Met Gly Lys Asp Val Thr Leu His Val Ser Ala Ser Asn Pro Ala Met
          370          375          380
Leu Leu Tyr Gln Lys Phe Gly Phe Lys Thr Glu Glu Tyr Val Leu Asp
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Phe Tyr Asp Lys Tyr Tyr Pro Leu Glu Ser Thr Glu Cys Lys His Ala
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<210> 2765
 <211> 582
 <212> DNA
 <213> Homo sapiens

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582

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<210> 2766
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 2766
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20          25          30
Ala Arg Ser Leu Cys Ser Ala Gly Thr Gln Pro Ala Pro Ser Thr Thr
35          40          45
Ser Leu Pro Ser Trp Arg Ser Ala Ala Pro Leu Ala Trp Pro Leu Gln

```


| | | | | |
|---|----|----|----|----|
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| Leu Ser Gly Gln Trp Trp Ser Ala Gly Ala Cys Phe Leu Asp Leu Pro | | | | |
| 65 | | 70 | | 75 |
| Ser Leu Ala Leu Cys Trp Pro Gly Asp Ser Gly Asp Ala Glu Trp Pro | | | | 80 |
| | 85 | | 90 | 95 |
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| 100 | | | | |

<210> 2767

<211> 1202

<212> DNA

<213> Homo sapiens

<400> 2767

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1202

<210> 2768
<211> 282
<212> PRT
<213> Homo sapiens

<400> 2768
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Ser Leu Ala Gln Pro Asp Arg Arg Tyr Ser Glu Pro Ser Met Pro Ser
35 40 45
Ser Gln Glu Cys Leu Glu Ser Arg Val Thr Asn Gln Thr Leu Thr Lys
50 55 60
Ser Glu Gly Asp Phe Pro Val Pro Arg Val Gly Ser Arg Leu Glu Ser
65 70 75 80
Glu Glu Ala Glu Asp Pro Phe Pro Glu Glu Val Phe Pro Ala Val Gln
85 90 95
Gly Lys Thr Lys Arg Pro Val Asp Leu Lys Ile Lys Asn Leu Ala Pro
100 105 110
Gly Ser Val Leu Pro Arg Ala Leu Val Leu Lys Ala Phe Ser Ser Ser
115 120 125
Ser Leu Asp Ala Ser Ser Asp Ser Ser Pro Val Ala Ser Pro Ser Ser
130 135 140
Pro Lys Arg Asn Phe Phe Ser Arg His Gln Ser Phe Thr Thr Lys Thr
145 150 155 160
Glu Lys Gly Lys Pro Ser Arg Glu Ile Lys Lys His Ser Met Ser Phe
165 170 175
Thr Phe Ala Pro His Lys Lys Val Leu Thr Lys Asn Leu Ser Ala Gly
180 185 190
Ser Gly Lys Ser Gln Asp Phe Thr Arg Asp His Val Pro Arg Gly Val
195 200 205
Arg Lys Glu Ser Gln Leu Ala Gly Arg Ile Val Gln Glu Asn Gly Cys
210 215 220
Glu Thr His Asn Gln Thr Ala Arg Gly Phe Cys Leu Arg Pro His Ala
225 230 235 240
Leu Ser Val Asp Asp Val Phe Gln Gly Ala Asp Trp Glu Arg Pro Gly
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Ser Pro Pro Ser Tyr Glu Glu Ala Met Gln Gly Pro Ala Ala Arg Leu
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Val Ala Ser Gln Gln Phe Gln Phe Leu Ala
275 280

<210> 2769
<211> 1286
<212> DNA
<213> Homo sapiens

<400> 2769
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 960
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 1020
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 1080
 cccttgggac ttgagggggg ccccaggggt tctcaggacc cctccacca cctccagtg
 1140
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<210> 2770

<211> 228

<212> PRT

<213> Homo sapiens

<400> 2770

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| Ile | Cys | Asn | Met | Tyr | Thr | Met | Tyr | Ser | Met | Met | Asn | Val | Gly | Gln | Thr |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Ala | Glu | Lys | Val | Glu | Ala | Leu | Pro | Glu | Gln | Val | Ala | Pro | Glu | Ser | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Arg | Ile | Arg | Val | Arg | Gln | Asp | Leu | Ala | Ser | Leu | Pro | Ala | Glu | Leu |

35 40 45
 Ile Asn Gln Ile Gly Asn Arg Cys His Pro Lys Leu Tyr Asp Glu Gly
 50 55 60
 Asp Pro Ser Glu Lys Leu Glu Leu Val Thr Gly Thr Asn Val Tyr Ile
 65 70 75 80
 Thr Arg Ala Gln Leu Met Asn Cys His Val Ser Ala Gly Thr Arg His
 85 90 95
 Lys Val Leu Leu Arg Arg Leu Leu Ala Ser Phe Phe Asp Arg Asn Thr
 100 105 110
 Leu Ala Asn Ser Cys Gly Thr Gly Ile Arg Ser Ser Thr Asn Asp Pro
 115 120 125
 Arg Arg Lys Pro Leu Asp Ser Arg Val Leu His Ala Val Lys Tyr Tyr
 130 135 140
 Cys Gln Asn Phe Ala Pro Asn Phe Lys Glu Ser Glu Met Asn Ala Ile
 145 150 155 160
 Ala Ala Asp Met Cys Thr Asn Ala Arg Arg Val Val Arg Lys Ser Trp
 165 170 175
 Met Pro Lys Val Lys Val Leu Lys Ala Glu Asp Asp Ala Tyr Thr Thr
 180 185 190
 Phe Ile Ser Glu Thr Gly Lys Ile Glu Pro Asp Met Met Gly Val Glu
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 His Gly Phe Glu Thr Ala Ser His Glu Gly Glu Ala Gly Pro Ile Ala
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 Glu Ala Leu Gln
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<210> 2771

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 2771

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 120
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 180
 aagctggcag agatgttctc tagcttagcc aaggcctcca cggacgcgga gggccgcttc
 240
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 360
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 420
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 660

gagatggaca ttaaggccca ggggtacaag gtattctcca agttctacct gacgtacccc
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 1080
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 1200
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 1560
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<210> 2772

<211> 258

<212> PRT

<213> Homo sapiens

<400> 2772

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| Val | Ile | Cys | Met | Trp | Gln | Gly | Cys | Ala | Val | Glu | Arg | Pro | Val | Gly | Arg |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Met | Thr | Ser | Gln | Thr | Pro | Leu | Pro | Gln | Ser | Pro | Arg | Pro | Arg | Arg | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Met | Ser | Thr | Val | Val | Glu | Leu | Asn | Val | Gly | Gly | Glu | Phe | His | Thr |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Thr | Thr | Leu | Gly | Thr | Leu | Arg | Lys | Phe | Pro | Gly | Ser | Lys | Leu | Ala | Glu |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Met | Phe | Ser | Ser | Leu | Ala | Lys | Ala | Ser | Thr | Asp | Ala | Glu | Gly | Arg | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Phe | Ile | Asp | Arg | Pro | Ser | Thr | Tyr | Phe | Arg | Pro | Ile | Leu | Asp | Tyr | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Thr | Gly | Gln | Val | Pro | Thr | Gln | His | Ile | Pro | Glu | Val | Tyr | Arg | Glu |

100 105 110
 Ala Gln Phe Tyr Glu Ile Lys Pro Leu Val Lys Leu Leu Glu Asp Met
 115 120 125
 Pro Gln Ile Phe Gly Glu Gln Val Ser Arg Lys Gln Phe Leu Leu Gln
 130 135 140
 Val Pro Gly Tyr Ser Glu Asn Leu Glu Leu Met Val Arg Leu Ala Arg
 145 150 155 160
 Ala Glu Ala Ile Thr Ala Arg Lys Ser Ser Val Leu Val Cys Leu Val
 165 170 175
 Glu Thr Glu Glu Gln Asp Ala Tyr Tyr Ser Glu Val Leu Cys Phe Leu
 180 185 190
 Gln Asp Lys Lys Met Phe Lys Ser Val Val Lys Phe Gly Pro Trp Lys
 195 200 205
 Ala Val Leu Asp Asn Ser Asp Leu Met His Cys Leu Glu Met Asp Ile
 210 215 220
 Lys Ala Gln Gly Tyr Lys Val Phe Ser Lys Phe Tyr Leu Thr Tyr Pro
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 Trp Trp

<210> 2773

<211> 593

<212> DNA

<213> Homo sapiens

<400> 2773

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 480
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<210> 2774

<211> 157

<212> PRT

<213> Homo sapiens

<400> 2774

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 Glu Asp Ala Glu Glu Ser Leu Glu Glu Glu Glu Ala Leu Asp Pro Leu
 35 40 45
 Gly Ile Met Arg Ser Lys Lys Pro Lys Lys His Pro Lys Val Ala Val
 50 55 60
 Lys Ala Lys Pro Ser Pro Arg Leu Thr Ile Phe Asp Glu Glu Val Asp
 65 70 75 80
 Pro Asp Glu Gly Leu Phe Gly Pro Gly Arg Lys Leu Ser Pro Gln Asp
 85 90 95
 Pro Ser Glu Asp Val Ser Ser Met Asp Pro Leu Lys Leu Phe Asp Asp
 100 105 110
 Pro Asp Leu Gly Gly Ala Ile Pro Leu Gly Asp Ser Leu Leu Leu Pro
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 Ala Ser Lys Glu Leu Phe Arg Gln Ile Gln Lys Glu Pro
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<210> 2775

<211> 3139

<212> DNA

<213> Homo sapiens

<400> 2775

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<211> 370

<212> PRT

<213> Homo sapiens

<400> 2776

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Asp | Ser | Ile | Cys | Ser | Val | Lys | Met | Glu | Val | Ser | Lys | Cys | Ala | Arg |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Tyr | Gly | Ser | Phe | Pro | Ile | Phe | Ile | Ser | Ala | Leu | Leu | Phe | Gly | Asn | Phe |
| | | | 35 | | | | 40 | | | | | | 45 | | |
| Trp | Thr | His | Pro | Ile | Thr | Asp | Gln | Leu | Arg | Ala | Met | Asn | Lys | Ala | Ala |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| His | Gln | Glu | Ser | Thr | Glu | His | Val | Leu | Ser | Gly | Gly | Val | Val | Val | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Ile | Phe | Phe | Ile | Leu | Ser | Ala | Asn | Ile | Leu | Ser | Ser | Pro | Ser | Lys |
| | | | | 85 | | | | | | 90 | | | | 95 | |
| Arg | Gly | Gln | Lys | Gly | Thr | Leu | Ile | Gly | Tyr | Ser | Pro | Glu | Gly | Thr | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Tyr | Asn | Phe | Met | Gly | Asp | Ala | Phe | Gln | His | Ser | Ser | Gln | Ser | Ile |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Pro | Arg | Phe | Ile | Lys | Glu | Ser | Leu | Lys | Gln | Ile | Leu | Glu | Glu | Ser | Asp |
| | | | 130 | | | | 135 | | | | | 140 | | | |
| Ser | Arg | Gln | Ile | Phe | Tyr | Phe | Leu | Cys | Leu | Asn | Leu | Leu | Phe | Thr | Phe |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Val | Glu | Leu | Phe | Tyr | Gly | Val | Leu | Thr | Asn | Ser | Leu | Gly | Leu | Ile | Ser |

165 170 175
 Asp Gly Phe His Met Leu Phe Asp Cys Ser Ala Leu Val Met Gly Leu
 180 185 190
 Phe Ala Ala Leu Met Ser Arg Trp Lys Ala Thr Arg Ile Phe Ser Tyr
 195 200 205
 Gly Tyr Gly Arg Ile Glu Ile Leu Ser Gly Phe Ile Asn Gly Leu Phe
 210 215 220
 Leu Ile Val Ile Ala Phe Phe Val Phe Met Glu Ser Val Ala Arg Leu
 225 230 235 240
 Ile Asp Pro Pro Glu Leu Asp Thr His Met Leu Thr Pro Val Ser Val
 245 250 255
 Gly Gly Leu Ile Val Asn Leu Ile Gly Ile Cys Ala Phe Ser His Ala
 260 265 270
 His Ser His Ala His Gly Ala Ser Gln Gly Ser Cys His Ser Ser Asp
 275 280 285
 His Ser His Ser His His Met His Gly His Ser Asp His Gly His Gly
 290 295 300
 His Ser His Gly Ser Ala Gly Gly Gly Met Asn Ala Asn Met Arg Gly
 305 310 315 320
 Val Ile Ser Thr Cys Phe Gly Arg Tyr Ser Trp Gln His Trp Cys Asp
 325 330 335
 Arg Ile His Ser Leu Ile Glu Gln Phe Gly Trp Phe Ile Ala Asp Ser
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 Thr Leu Phe Ser Phe Tyr Cys Tyr Ile Asn Ile Ser Gln Cys Cys Ser
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 Thr Asp
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<210> 2777

<211> 8625

<212> DNA

<213> Homo sapiens

<400> 2777

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 180
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 360
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 480
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 540
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cctcccacag tatctcaacc aggggttcagt gcaggacat catcatcttc atctttacca
660
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| Met | His | Ser | Glu | Gln | Glu | Gly | Gln | His | Val | Gln | Arg | Pro | Cys | Gly | Gly | 1 | 5 | 10 | 15 |
| Lys | Glu | Phe | Gly | Leu | Phe | Glu | Glu | Leu | Ser | Glu | Gly | Ser | Phe | Gly | Trp | 20 | 25 | 30 | |
| Val | Thr | Gly | Ile | Arg | Arg | Met | Arg | Phe | Lys | Gly | Leu | Ala | Gly | Val | Asp | 35 | 40 | 45 | |
| Ser | Ser | Leu | Glu | Val | Val | Ser | Leu | Leu | Pro | Pro | Arg | Ser | Phe | Ser | Leu | 50 | 55 | 60 | |
| Asn | Ser | Glu | Gly | Ala | Glu | Arg | Met | Ala | Thr | Thr | Gly | Thr | Pro | Thr | Ala | 65 | 70 | 75 | 80 |
| Asp | Arg | Gly | Asp | Ala | Ala | Ala | Thr | Asp | Asp | Pro | Ala | Ala | Arg | Phe | Gln | 85 | 90 | 95 | |
| Val | Gln | Lys | His | Ser | Trp | Asp | Gly | Leu | Arg | Ser | Ile | Ile | His | Gly | Ser | 100 | 105 | 110 | |
| Arg | Lys | Tyr | Ser | Gly | Leu | Ile | Val | Asn | Lys | Ala | Pro | His | Asp | Phe | Gln | 115 | 120 | 125 | |
| Phe | Val | Gln | Lys | Thr | Asp | Glu | Ser | Gly | Pro | His | Ser | His | Arg | Leu | Tyr | 130 | 135 | 140 | |
| Tyr | Leu | Gly | Met | Pro | Tyr | Gly | Ser | Arg | Glu | Asn | Ser | Leu | Leu | Tyr | Ser | 145 | 150 | 155 | 160 |
| Glu | Ile | Pro | Lys | Lys | Val | Arg | Lys | Glu | Ala | Leu | Leu | Leu | Leu | Ser | Trp | 165 | 170 | 175 | |
| Lys | Gln | Met | Leu | Asp | His | Phe | Gln | Ala | Thr | Pro | His | His | Gly | Val | Tyr | | | | |

2025

| | | |
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| Phe His Phe His Thr Arg Ser Asp Val Arg Leu Tyr Gly Met Ile Tyr | | 685 |
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| Ile | Gly | Thr | Thr | Lys | Lys | Gly | Ile | Gly | Pro | Thr | Tyr | Ser | Ser | Lys | Ala |
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| Phe | Ser | Ser | Arg | Phe | Lys | Asn | Leu | Ala | His | Gln | His | Gln | Ser | Met | Phe |
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| Pro | Thr | Leu | Glu | Ile | Asp | Ile | Glu | Gly | Gln | Leu | Lys | Arg | Leu | Lys | Gly |
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| | | | 85 | | | | | 90 | | | | | 95 | | |
| Tyr | Glu | Ala | Leu | His | Gly | Pro | Pro | Lys | Lys | Ile | Leu | Val | Glu | Gly | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Ala | Ala | Leu | Leu | Asp | Ile | Asp | Phe | Gly | Thr | Tyr | Pro | Phe | Val | Thr |
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| Ser | Ser | Asn | Cys | Thr | Val | Gly | Gly | Val | Cys | Thr | Gly | Leu | Gly | Ile | Pro |
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| | | | 165 | | | | | 170 | | | | | 175 | | |
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| | | | 180 | | | | | 185 | | | | | 190 | | |
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